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Department of Mines and Explosives, Mysore State.

# REPORT

OF THE

# Chief Inspector of Mines in Mysore

including the Explosives Section.

FOR THE YEAR

## 1922-23

With Statistics for the Calendar Year 1922.

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# Government of His Highness the Maharaja of Mysore.

## GENERAL AND REVENUE DEPARTMENTS.

**G. O. No. I. C. 4011—Geol. 12-23-5, dated 31st December 1923.**

**Report on the working of the Department of Mines and Explosives.**

Reviews the —— for the year 1922-23.

READ—

The Report of the working of the Department of Mines and Explosives for the year 1922-23, received with letter No. 302, dated 22nd September 1923, from the Chief Inspector of Mines in Mysore.

ORDER NO. I. C. 4011—GEOL. 12-23-5, DATED 31ST DECEMBER 1923.

Recorded.

Mr. R. Bocquet continued to be in charge of the Department as Chief Inspector during the year.

2. The Department of Explosives having been abolished as a separate branch, an account of the work done in connection with the Explosives Department has been embodied by the Chief Inspector of Mines in the Report under review.

3. The number of Gold Mining Companies, which carried on operations during the year, remained stationary at five. Four of these are reported to have produced gold and paid dividends while one produced gold, but was unable to pay any dividends. The total quantity of bar gold produced during the Calendar year 1922 and the value thereof were 429,560 ozs., and £ 1,789,433, respectively, against 4,22,533 ozs. and £ 2,015,568, respectively, in the year 1921. The decrease of nearly 11¼ per cent in the value of the output is entirely due to a decline in the price of the metal.

4. The nominal capital of all the Gold Mining Companies was the same as in the previous year, *viz.*, £ 1,717,000, but there was a small increase of £ 136,045 in the paid up capital which at the end of 1922 stood at £ 1,666,180.

5. As a result of the decrease in the saleable value of gold, there was a corresponding fall in the total royalty payable to Government which was £ 95,837 during the year 1922 showing a decrease of £ 12,744 as compared with the previous year.

6. Government are glad to note that systematic inspection of the mines on the Kolar Gold Field was carried out throughout the year by the Inspector and the Assistant Inspector of Mines and that the inspection has shown that the rules under the Mines Regulation are generally closely adhered to. In addition to the inspection of the Gold Field area, the departmental officers also inspected the various mining blocks in the Shimoga, Bangalore, Kolar and Mysore Districts.

7. In the Kolar Gold Fields area, there were 181 accidents during the year 1922 as against 182 in the previous year. Of these, 44 were fatal and 131 serious, the remaining 6 being non-mining accidents. Of the 175 fatal and serious accidents connected with mining, 137 were classed as unavoidable while 19 were due to negligence and 19 more to recklessness. In the 44 fatal accidents, 72 persons were killed, the rate of mortality being 2·88 per mille of the number employed as against 2·66 per mille in the year 1921. Accidents due to rockbursts continued to occur and there were 11 such accidents during the Calendar year 1922, in which 36 persons were killed. No accidents were reported in the mining blocks in the other districts as the operations therein were confined only to surface and shallow mining.

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No. I. C. 4011—GEOL. 12-23-5, DATED 31ST DECEMBER 1923.

8. The number of persons employed in the gold mining industry during the year was 23,297 as against 23,344 in 1921. Of these, 12,555 were employed below-ground and 10,742 on surface. No woman or child under twelve years of age was employed below-ground. The number of women and children employed on the surface was 1,499 and 750 respectively. A satisfactory feature of the gold mining industry in the State is that all the mining companies have of their own accord divided the working day of 24 hours into three shifts of eight hours each, provision being made for longer shifts in cases of emergency, which, however, are found by experience to be occasional and not very frequent. It is also gratifying to observe that the conditions of labour generally and the relationship between the employer and the employed are reported to be satisfactory. The mining companies provide free medical attendance in all cases of sickness as also daily allowance to the employees while off duty. The scheme of compensation for injuries and accidents, which has been instituted by the companies, is reported to be appreciated by the employees. A sum of Rs. 1,73,964 was paid as compensation during the year. It is a matter for grave concern that notwithstanding the measures adopted and the amounts expended by the several companies to prevent rockbursts, they have not been successful and that there were as many as 45 fatalities from this cause during the official year (1922-23). The Champion Reef Mine suffered most heavily from these accidents, three out of the eight rockbursts having occurred in the mine accounting for 27 deaths.

9. One person was prosecuted and convicted during the year for a breach of the Mines Regulation and Rules framed thereunder resulting in an accident. For other less serious offences in connection with 13 accidents, 18 persons were punished either by fine or by the cancellation or suspension of their certificates and nine persons were dealt with departmentally for offences committed in connection with the provisions of the rules not resulting in accidents.

10. Four hundred and thirty-four licenses were issued under the Explosives Rules during the year 1922. The Chief Inspector has brought to notice that in many cases, the District Magistrates have issued licenses on wrong forms and have levied either excess or insufficient amounts as fees. He has also pointed out that the work of inspection of explosives premises by the Magistracy and Police is very inadequate. The Government desire to draw the attention of the District Magistrates to the remarks of the Chief Inspector of Mines in this respect: and they trust that a better record of work will be shown in the next year by arranging for inspection work on more systematic lines.

11. The total number of accidents due to explosives was 28 during the year involving the death of 16 persons. Four persons were prosecuted for offences under the rules of whom two were convicted, one is absconding and the case against the other is still pending.

12. The Government desire to place on record their appreciation of the efficient manner in which the officers of the Mines Department have carried out the arduous duties entrusted to them.

K. V. ANANTARAMAN,
Offg. *Secy. to Govt., Rev. Dept.*

To—The Chief Inspector of Mines in Mysore.
PRESS TABLE.

Exd.—K. K.

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# REPORT

OF THE

# CHIEF INSPECTOR OF MINES IN MYSORE

## *FOR THE YEAR 1922-23.*

## A.—MINING AND PROSPECTING.

### (1) CERTIFICATES OF APPROVAL.

The total number of certificates of approval in force during the year 1922-23 was 25 against 23 in the previous year. The number of fresh certificates granted rose from 12 to 17, but the number renewed fell from 11 to 8.

### (2) LEASES AND LICENSES.

The following statement shows the number of applications received during 1922-23 for exploring and prospecting licenses, mining leases, etc., as compared with the previous year:—

| Items ... | 1921-22 | 1922-23 |
|---|---|---|
| Exploring licenses ... ... ... | 13 | 10 |
| Prospecting licenses ... ... ... | 22 | 53 |
| Mining leases ... ... ... | 7 | 5 |
| Renewals of prospecting licenses ... ... | 20 | 21 |
| Certificates of approval ... ... | 1 | 35 |
| Licenses for collecting corundum ... ... | ... | 2 |
| Licenses for collecting waste mica ... ... | 1 | 1 |
| Total ... | 64 | 127 |
| Increase ... | ... | 63 |

The following statements show the number of leases and licenses current during 1922-23, as compared with the previous year:—

### (a) MINING LEASES.

| Mineral | District | 1921-22 | 1922-23 |
|---|---|---|---|
| 1. Gold ... ... ... | Kolar ... ... | 23 | 23 |
| 2. Manganese ... ... ... | Shimoga ... ... | 2 | 2 |
| 3. Chrome and Magnesite ... ... | Mysore ... ... | 4 | 4 |
| 4. Chrome ... ... ... | Mysore ... ... | 1 | 1 |
| Do ... ... ... | Hassan ... ... | 4 | 4 |
| 5. Kaolin ... ... ... | Bangalore ... ... | 2 | 2 |
| Do ... ... ... | Kolar ... ... | 1 | 1 |
| Do ... ... ... | Bangalore and Kolar ... | ... | 1 |
| 6. Mica ... ... ... | Mysore ... ... | ... | 1 |
| 7. Asbestos ... ... ... | Hassan ... ... | 1 | 1* |
| | Total ... | 38 | 40 |
| | Increase ... | ... | 2 |

*Not yet issued.

## (b) PROSPECTING LICENSES.

| Mineral | District | 1921–22 | 1922–23 |
|---|---|---|---|
| Manganese | Tumkur | 5 | 3 |
| | Chitaldrug | 5 | 4 |
| | Shimoga | ... | 3 |
| | Total | 10 | 10 |
| Chrome | Hassan | 1 | 2 |
| | Total | 1 | 2 |
| Chrome, Magnesite and Graphite | Mysore | 1 | 1 |
| | Total | 1 | 1 |
| Magnesite | Mysore | 2 | 1 |
| | Total | 2 | 1 |
| Copper | Chitaldrug | 1 | ... |
| | Mysore | 1 | 1 |
| | Total | 2 | 1 |
| Mica | Mysore | 1 | 2 |
| | Hassan | ... | 1 |
| | Total | 1 | 3 |
| Mica and Asbestos | Chitaldrug | ... | 1 |
| | Total | ... | 1 |
| Ochres | Chitaldrug | 2 | 2 |
| | Tumkur | 1 | 1 |
| | Kolar | 5 | 1 |
| | Total | 8 | 4 |
| Kaolin or China Clay | Bangalore | 1 | 2 |
| | Tumkur | 1 | ... |
| | Kolar | ... | 1 |
| | Hassan | 2 | 2 |
| | Kadur | 3 | 2 |
| | Bangalore and Kolar | 2 | 1 |
| | Kadur and Shimoga | 1 | 1 |
| | Total | 10 | 9 |
| Kaolin or Fire Clay | Chitaldrug | ... | 2 |
| | Total | ... | 2 |
| Asbestos | Hassan | 3 | 4 |
| | Bangalore | 2 | ... |
| | Total | 5 | 4 |
| Soapstone | Mysore | 1 | ... |
| | Tumkur | 3 | 6 |
| | Total | 4 | 6 |
| Slatestone | Tumkur | 1 | 1 |
| | Total | 1 | 1 |
| Graphite | Mysore | 1 | 1 |
| | Total | 1 | 1 |

### (b) PROSPECTING LICENSES—*concld.*

| Mineral | District | 1921–22 | 1922–23 |
|---|---|---|---|
| Limestone ... ... ... | Kolar ... ... | 2 | 2 |
| | Total ... | 2 | 2 |
| Mica and Potstone... ... ... | Mysore ... ... | 1 | ... |
| | Total ... | 1 | ... |
| Asbestos, Mica, Magnesite, Chrome, Garnets and Ochres. | Hassan ... ... | 1 | ... |
| | Total ... | 1 | ... |
| Garnets ... ... ... | Kolar ... ... | 1 | ... |
| | Total ... | 1 | ... |
| | Grand Total ... | 51 | 48 |
| | Decrease ... | ... | 3 |

The number of prospecting licenses current during 1922-23 was less than that of the previous year by three.

### DISTRICT ABSTRACT.

| | 1921-22 | 1922-23 |
|---|---|---|
| Bangalore ... ... ... ... | 3 | 2 |
| Kolar ... ... ... ... | 10 | 5 |
| Tumkur ... ... ... ... | 11 | 11 |
| Mysore ... ... ... ... | 8 | 6 |
| Hassan ... ... ... ... | 7 | 9 |
| Shimoga ... ... ... ... | 1 | 3 |
| Kadur ... ... ... ... | 3 | 3 |
| Chitaldrug ... ... ... ... | 8 | 9 |
| Total ... | 51 | 48 |
| Decrease ... | ... | 3 |

### TOTAL AREA UNDER LEASES AND LICENSES AND RENTS RECEIVED.

The total area under mining leases and prospecting licenses during 1922-23 was 46,646 acres and the rents payable thereunder amounted to Rs. 17,705. The decrease under these two heads, respectively, when compared with the previous year is 7,832 acres and Rs. 300 in rents.

### (c) COLLECTING LICENSES.

| District | Taluk | 1921-22 | 1922-23 |
|---|---|---|---|
| Mysore ... | Mandya ... ... | 1 | 1 |
| Mysore and Hassan ... | Certain specified localities ... | ... | 1 |
| | Total ... | 1 | 2 |
| | Increase ... | ... | 1 |

One of the two licenses was for the collection of waste mica in certain specified localities of the Mysore and Hassan Districts and the other for the collection of alkaline earth in the Mandya Taluk.

### (d) EXPLORING LICENSES.

| District | 1921-22 | 1922-23 | Remarks |
|---|---|---|---|
| Bangalore ... ... | 3 | 2 | |
| Kolar ... ... ... | 4 | 2 | |
| Tumkur ... ... ... | 1 | 2 | With preferential rights for limestone. |
| Mysore ... ... ... | ... | 1 | |
| Hassan ... ... ... | ... | 1 | |
| Shimoga ... ... ... | ... | 1 | |
| Kadur ... ... ... | ... | 1 | |
| Chitaldrug ... ... | 2 | 3 | 1 with preferential rights for limestone. |
| Total ... | 10 | 13 | |
| Increase ... | ... | 3 | |

### (e) SUMMARY.

The following statement shows the numbers of leases, licenses and the certificates of approval that were current during the year 1922-23, as compared with those of the previous year :—

| Items | 1921-22 | 1922-23 |
|---|---|---|
| Mining leases ... ... ... ... | 38 | 40 |
| Prospecting licenses ... ... ... ... | 51 | 48 |
| Collecting licenses ... ... ... ... | 1 | 2 |
| Exploring licenses ... ... ... ... | 10 | 13 |
| Approval certificates ... ... ... ... | 23 | 25 |
| Total ... | 123 | 128 |
| Increase ... | ... | 5 |

## B.—GOLD MINING.

### I.—Gold Production, Dividends and Royalty for the Calendar Year 1922.

The nominal capital of all companies carrying on operations in Mysore was—

| | £. | s. | d. |
|---|---|---|---|
| in December 1922 ... ... | 1,717,000 | 0 | 0 |
| and in December 1921 ... ... | 1,717,000 | 0 | 0 |

or the same for both years—

The amount of the above capital, called and paid up, was—

| | £. | s. | d. |
|---|---|---|---|
| in December 1922 ... ... | 1,666,179 | 18 | 6 |
| and in December 1921 ... ... | 1,530,135 | 5 | 0 |
| being an increase of ... | 136,044 | 13 | 6 |

most of which (£135,707-13-6) was due to sh. 4 per share being called up in the case of the Champion Reef Gold Mines of India, Ld. Small amounts were also paid up on shares issued by the Nundydroog and Balaghat Companies.

The number of companies which carried on operations during the year was five as against the same number in the previous year, of which 4 produced gold and paid dividends and 1 produced gold but paid no dividends.

The quantity of bar gold produced—

| | Ozs. |
|---|---|
| during 1922 amounted to ... ... | 429,559·60 |
| and during 1921 to ... ... | 422,532·78 |
| being an increase of ... | 7,026·82 |

The total value of bullion produced—

| | £. | s. | d. |
|---|---|---|---|
| during 1922 amounted to ... ... | 1,789,432 | 10 | 1 |
| and during 1921 to ... (revised) | 2,015,568 | 8 | 9 |
| being a decrease of ... | 226,135 | 18 | 8 |

or a decrease of 11·22 per cent as against a decrease of 8·88 per cent in 1921. The decrease in the value is entirely due to a decline of no less than sh. 11/8 per fine ounce in the price of the metal as sold in open market.

The total amounts paid in dividends—

| | £. | s. | d. |
|---|---|---|---|
| during 1922 were ... ... | 254,620 | 7 | 6 |
| and in 1921 ... ... | 312,098 | 0 | 6 |
| being a decrease of ... | 57,477 | 13 | 0 |

The total dividends paid during the year amounted to 18·09 per cent of the paid up capital of the dividend paying companies or 15·28 per cent of the paid up capital of all the working companies. The corresponding figures for 1921 were 22·18 and 20·40 per cent, respectively.

The royalty payable to Government on the gold won and dividends paid—

| | £. | s. | d. |
|---|---|---|---|
| during the year 1922 was ... ... | 95,837 | 2 | 9 |
| as against in 1921 ... (revised) | 108,580 | 17 | 5 |
| being a decrease of ... | 12,743 | 14 | 8 |

the decrease being 11·74 per cent against a decrease of 8·27 per cent in 1921, due to the marked drop in value referred to above.

### II.—Total Gold Production, Dividends and Royalty from 1882 to the end of 1922.

The total quantity of bar gold produced from the commencement of mining operations is—

| | | Ozs. |
|---|---|---|
| up to end of 1921 | ... ... | 14,801,984·648 |
| and for 1922 | ... ... | 429,559·600 |
| | Grand Total ... | 15,231,544·248 |

The total value of gold bullion produced—

| | | £. | s. | d. |
|---|---|---|---|---|
| up to end of 1921 was | ... (revised) | 56,843,197 | 10 | 6 |
| and for 1922 | ... ... | 1,789,432 | 10 | 1 |
| | Grand Total ... | 58,632,630 | 0 | 7 |

Total dividends paid—

| | | £. | s. | d. |
|---|---|---|---|---|
| up to end of 1921 | ... ... | 19,769,059 | 16 | 8 |
| and for 1922 | ... ... | 254,620 | 7 | 6 |
| | Grand Total ... | 20,023,680 | 6 | 2 |

The amount of royalty which has been paid to Government is—

| | | £. | s. | d. |
|---|---|---|---|---|
| up to end of 1921 | ... (revised) | 2,990,003 | 11 | 3 |
| and that payable for 1922 | ... ... | 95,837 | 2 | 9 |
| | Grand Total ... | 3,085,840 | 14 | 0 |

### III.—Statement showing the amount of Royalty payable to Government, the amount paid and the balance still due for the year 1922.

**(as furnished by the Comptroller.)**

GOLD—(*a*).

| No. | Name of Mine | Balance due on account of the previous year | Amount due for the current year | Total demand | Collection | Balance due (1-1-1923) |
|---|---|---|---|---|---|---|
| | | Rs. | Rs. | Rs. | Rs. | Rs. |
| 1 | Mysore ... | 1,36,617 | 5,08,876 | 6,45,493 | 5,38,891 | 1,06,602 |
| 2 | Champion Reef ... | 62,094 | 1,99,529 | 2,61,623 | 2,16,972 | 44,651 |
| 3 | Ooregum ... | 1,08,137 | 3,99,599 | 5,07,736 | 4,21,357 | 86,379 |
| 4 | Nundydroog ... | 69,048 | 2,40,682 | 3,09,730 | 2,50,292 | 59,438 |
| 5 | Balaghat ... | 35,097 | 1,23,073 | 1,58,170 | 1,27,443 | 30,727 |
| | Total ... | 4,10,993 | 14,71,759 | 18,82,752 | 15,54,955 | 3,27,797 |
| | Total for 1921 ... | 3,83,082 | 15,82,039 | 19,65,121 | 15,54,128 | 4,10,993 |

*N.B.*—In addition, Rs. 240 was paid during the month of May 1922 as royalty on the confiscated gold for the year 1921.

## SILVER (*b*).

| No. | Name of Mine | Balance due on account of the previous year | Amount due for the current year | Total demand | Collection | Balance due (1-1-1923) |
|---|---|---|---|---|---|---|
| | | Rs. | Rs. | Rs. | Rs. | Rs. |
| 1 | Mysore ... | 316 | 963 | 1,279 | 986 | 293 |
| 2 | Champion Reef ... | 154 | 344 | 498 | 380 | 118 |
| 3 | Ooregum ... | 261 | 627 | 888 | 667 | 221 |
| 4 | Nundydroog ... | 219 | 485 | 704 | 502 | 202 |
| 5 | Balaghat ... | 106 | 265 | 371 | 260 | 111 |
| | Total ... | 1,056 | 2,684 | 3,740 | 2,795 | 945 |

### IV.—Gold production for the six months ending 30th June 1923.

| Name of Mine | | Fine Ozs. | Fine Ozs. | Value £ Stg. |
|---|---|---|---|---|
| Mysore ... | Mill ... | 36,434·97 | | |
| | Cyanide ... | 25,253·49 | | |
| | Total ... | ... | 61,688·46 | 279,664 |
| Champion Reef ... | Mill ... | 19,794·63 | | |
| | Cyanide ... | 5,536·73 | | |
| | Total ... | ... | 25,331·36 | 113,314 |
| Ooregum ... | Mill ... | 46,805·74 | | |
| | Cyanide ... | 6,283·78 | | |
| | Total ... | ... | 53,089·52 | 238,225 |
| Nundydroog ... | Mill ... | 23,465·64 | | |
| | Cyanide ... | 9,334·62 | | |
| | Total ... | ... | 32,800·26 | 146,054 |
| Balaghat ... | Mill ... | 14,916·26 | | |
| | Cyanide ... | 3,344·28 | | |
| | Total ... | ... | 18,260·54 | 82,305 |
| | Grand Total ... | ... | 191,170·14 | 859,562 |

*Note.*—The figures in this statement are subject to revision.

### V.—Number of Mines at Work.

*Gold.*—Mining operations were in progress on five mining blocks, the same as in the previous year.

The five working blocks are distributed as follows:—

1. Mysore Block (Mining Leases Nos. 118, 127, 128, 129, 130, 134, 144 and 151).—The Mysore Gold Mining Company, Limited.
2. Champion Reef Block (Mining Leases Nos. 121 and 136).—The Champion Reef Gold Mines of India, Limited.
3. Ooregum Block (Mining Leases Nos. 132 and 137).—The Ooregum Gold Mining Company of India, Limited.
4. Nundydroog Block (Mining Lease No. 162).—Nundydroog Mines, Limited.
5. Balaghat Block (Mining Leases Nos. 120 and 163).—Balaghat Gold Mines, Limited.

The number of producing mines remains the same as in the previous year; outside the Kolar Gold Field area, no work was done on any blocks for gold. With the exception of Champion Reef, dividends were paid by all the above mines for the year under report, but on a somewhat reduced scale.

It cannot be said that there has been any marked improvement in the conditions affecting the industry generally, although the working costs compared with the previous year show a fairly substantial all round reduction due to an organised scheme of retrenchment which aims chiefly at cutting down staff and the employment of a lesser number of hands; this should not be done at the expense of efficiency -- a fact likely to be overlooked at times. To economically work the mines in depth points to the eventual amalgamation of the group of companies on the Kolar Gold Field, a policy which might solve many of the existing difficulties, one of the most important being the adequate ventilation of the deeper workings with a gradually increasing rock temperature.

Although the total output of gold exceeds that of the previous twelve months by 1,175 fine ozs. — three mines (Balaghat, Ooregum and Nundydroog) showing increases against decreases on the part of the other two — there is a very serious fall in the value realized of more than a quarter of a million sterling (£226,136) equivalent to, approximately, 34 lakhs of rupees, this being entirely due to the drop in the premium on the metal, the average price for the year being sh. 11/8 per fine oz. less.

Fluctuations in the quotations still continue, the bullion market being affected by many adverse factors, chief of which would seem to be the difficulty in stabilizing the several rates of exchange. The price at present shows a slight upward tendency as, after having reached a minimum of sh. 87/6 per fine oz. in March last, is now quoted at sh. 91/. Even if this should be maintained, it is more than probable that no improvement in the gross output can be anticipated during the present year, one of the mines (Champion Reef) having recently had to greatly curtail operations on account of a series of disastrous rockbursts.

The dividends declared show in a like manner a very marked decrease being £57,477-13-0 less than in 1921, equivalent to a decrease of 5·12 per cent on the paid up capital of the Companies.

No alteration has occurred in the gold-selling arrangements at present in force, but advantage has been taken of the slightly higher rates prevailing in the Indian market to dispose of practically the whole of the gold produced by these mines in this country; shipping and insurance charges have thereby been saved.

*Ore reserves.*— Compared with 1921, the figures for the Field show a decrease of over 84,000 tons, the estimates at the end of December last standing at 1,649,256 as against 1,733,685 tons twelve months earlier. Although these estimates are invariably framed on a somewhat conservative basis, yet the continuous fall in the total is an unsatisfactory feature and points to poor developments in depth. Three of the mines — Balaghat, Nundydroog and Ooregum — record increases, but these are more than counter-balanced by the drop in the other two.

The returns for the half year ending 30th June 1923, compared with the corresponding six months of 1922, are better by 2,762 fine ozs., but in value are over £50,000 less due to the fall in the premium. There is, at present, a slight improvement in the latter, but not sufficient to make up for any deficiency that is likely to occur in the output for the second half of 1923 as a result of the rockburst trouble referred to above. Hence the success of the operations during the current year depends upon a further reduction of working costs compatible with efficiency and a continued rise in the price of gold—problematical—if anything like the same degree of prosperity is to be maintained. However, it must be remembered that these mines cannot go on for ever.

## VI.—Progress Notes from Mines.

### KOLAR DISTRICT.

*Mysore Mine.*

The developments in depth during the year have been disappointing with the result that all operations of this description were suspended in the northern section of the Mine in November 1922. Since then, however, the sinking of Air Shaft in this section has been resumed — it was suspended at 170 ft. below the 62nd level—with the object of proving whether the continuation of Ribblesdale's shoot exists in depth; this can be ascertained by exploratory drivages at lower horizons.

In the southern section — to which practically the whole of the development has been confined — there are one or two promising points, but, so far, the reef when rich is narrow and when wide is of low grade. This, combined with the patchy nature of these shoots, is an unsatisfactory feature of the work done and accounts for the poor results.

Notwithstanding an increase of 15,790 tons of ore crushed and nearly 60,000 tons of sands and slimes treated in 1922, when compared with the previous year, the recovery of gold shows a decrease of 1,773 ozs. and the value a drop of £87,374, while the amount paid in dividends was less by £30,500, the two latter items being due to the fall in the market price of gold. The dividend declared was 20 per cent as gainst 25 per cent for the previous twelve months.

As a set-off against the above, the working-costs show a total decrease of over £65,000, the cost per ton crushed being reduced by sh. 7/7·54. The reserves of ore at the end of 1922 were estimated at 712,000 tons (equivalent to approximately 4 years crushing) a fall of 125,000 tons.

In view of the poor results attending the operations below ground, it has been found advisable to slightly lower the monthly tonnage crushed, but it is hoped that the gold returns will not show a proportionate decrease.

The vertical depths of the principal shafts below field datum on the 30th June last were :—

| | | |
|---|---|---|
| 1. | Air Shaft ... ... ... ... | 4,890 feet |
| 2. | Edgar's Auxiliary ... ... ... ... | 4,806 ,, |
| 3. | Ribblesdale's No. 2 Auxiliary ... ... ... | 4,485 ,, |
| 4. | Rowse's do ... ... ... | 4,445 ,, |
| 5. | McTaggart's Main Winze ... ... ... | 4,592 ,, |

The sink of Air Shaft remains the deepest point in the Mine both on the incline and vertically, *viz.*, 5,900 feet and 4, 890 feet, respectively.

The improvements effected in the arrangements for the raising and lowering of persons at both Edgar's and McTaggart's Vertical Shafts have continued to give satisfaction. The cage engine at the former shaft has been put out of commission and the underslung cages attached to the skips — which are convertible into cages — operated by the skip engine, deal with all the persons sent underground at this shaft. It is anticipated that the latter engine, at present steam driven, will in due course be converted into an electrically driven winder.

*Ventilation.*

Considering the extensive nature of the underground workings and the long distances to be traversed, the ventilation of the Mine is good. To assist in keeping Edgar's Shaft downcast during the hot weather months, two centrifugal fans, delivering 20,000 cubic feet of air per minute, have been installed in the 51st level shaft crosscut.

*Ore treatment.*

Considerable additions have been made to the Cyanide and Slimes Plants to facilitate the work in hand and improve operations generally. Two 16 inch conveyor belts were erected, made up from old material, and a new storage tank was constructed to be used for extra weak solutions. A new endless haulage was also completed and brought into use.

## *Champion Reef Mine.*

This Mine has suffered very severely from the effects of, and damage caused by, rockbursts during the period under review, the development work in depth having been greatly interfered with and delayed in consequence. However these operations — when eventually resumed early this year — have resulted in the discovery and partial opening up of two new shoots of ore, north and south of Carmichael's Secondary Shaft from the 56th and 65th levels, respectively, which have greatly improved the prospects of the Mine and possibly may give it a new lease of life. Unfortunately, just when these developments had reached a most interesting stage, work had again to be stopped due to further severe rockbursts which wrecked certain sections of both Glen and Carmichael's Secondary Shafts and also did considerable damage to some of the adjacent workings. Altogether it has been an exceedingly trying and most disheartening period for all concerned, but it is hoped the worst is now over and that an improvement may be recorded in conditions generally when the next report is written.

Reviewing the past year's results compared with those of 1921, the tonnage (quartz) crushed shows a slight increase and the quantity of gold produced a decrease of 4,756 ozs. On the other hand, the quantity of tailings and slimes treated shows a very substantial increase (over 68,000 tons) with a larger return to the extent of 3,149 ozs., the net result being a drop of 1,607 ozs. in the total output, the decrease in value being less by £40,502. Since March 1923, the amount of quartz crushed has had to be reduced from 12,000 to 9,000 tons per month, which will adversely affect the returns for the year.

Substantial savings, however, have been brought about in the working costs and it is hoped that still further economies will be introduced during the current year.

The ore reserves at the end of 1922 were estimated at 209,043 tons against 221,946 tons twelve months earlier. The comparatively small decrease is due to the fact that a considerable area, formerly reserved as pillars, and some 40,000 tons not included in previous calculations have been brought into reserves.

The extension of Carmichael's Secondary Shaft from the 44th to the 39th levels has been completed and the shaft timbered and equipped. A compressed air winding engine (20" cylinders by 36" stroke) has been erected in the chamber cut for the purpose at the 39th level and was put into commission in May 1923. The main haulage-way in the footwall between this and Gifford Shaft has also been completed and lined throughout in masonry, likewise the 40th and 41st level plats at Carmichael's Shaft.

On two occasions Glen Secondary Shaft has been wrecked by rockbursts, *viz.*, in September 1922 and June 1923; 300 feet of the shaft had to be retimbered following the first burst and 150 feet after the second—work still proceeding.

Sections of Tennant's Vertical Shaft have been lined in oval form with concrete (1) for 87 feet below the collar of the Shaft and (2) for 92 ft. below the 19th level, the ground being very heavy in this locality due to the intersection of the main reef. The work will be continued from the 19th level upwards during the coming year.

The deepest point in the Mine is the sink of Carmichael's Secondary Shaft, which has reached a vertical depth of 6,215 feet below field datum or 6,622 feet on the underlay. The 66th level from these two shafts is 6,194 feet vertically below field datum.

### *Ventilation.*

The scheme for the better ventilation of the deeper workings, referred to in last year's report, has been completed and the two new 55" double inlet fans erected at the 40th level, Garland's Shaft in the south end of the Mine and at the 41st level, Rowe's Shaft in the north end, respectively, started work in August 1922, greatly improving the conditions down below. It is stated that very many more persons have been employed below the 50th level than in the past, but that during the hot weather this year there have been no cases of collapse from heat in any of the deeper workings. This points to the conclusion that the substitution of mechanical for natural methods of ventilation was very necessary and has proved most beneficial. The rock temperature at the 66th level, when taken recently, was found to be 119° F.

### *Ore treatment.*

The retreatment of old tailings has been augmented by the increased power obtained a year ago in the Tube Mill plant and it is anticipated that the output will still be further increased when the Oliver Filter plant, now in course of erection, is put to work. The stock of old tailings that will pay for treatment is estimated to vary from 1½ to 1¾ million tons.

### *Prospecting work.*

The adit in the Valagamadi hill to prospect this area was stopped after being driven 600 feet, nothing of any value having been encountered.

### *Ooregum Mine.*

The drop in the market price of gold has resulted in the year's operations proving less satisfactory than would otherwise have been the case. Although the total output of gold exceeded that of the previous year by 253 ozs. — incidentally constituting a record in the history of this Company — the value realized fell by approximately £ 60,000. A reduction of £16,559 was effected in the working costs, but, in spite of this, the profit was over £ 41,000 less. The dividends paid amounted to 30 per cent on the preference and 20 per cent on the ordinary shares against 32½ per cent and 22½ per cent respectively, in 1921.

The expenditure on capital account met from revenue amounted to £106,329, of which £51,228 was the cost of sinking the Circular and Auxiliary Shafts and £ 55,101 outlay on new plant and machinery.

All development work in depth has been suspended at the horizon of the 66th level for the time-being, as the bottom workings are too far below the large shafts which are necessary for efficient ventilation; this was due to the delay in sinking the Circular Shaft while the Great War lasted.

With the high rock temperatures existing at these depths, it has obviously become necessary to devise some scheme for carrying on the work by the introduction of a more uniform system of development, otherwise it would be impossible to adequately ventilate these workings. After due deliberation and a careful study of the situation generally, a scheme has been adopted which briefly is as follows:—

The mine below the 64th level has been divided into, roughly, nine equal parts by the two shafts — Bullen's and Oakley's No. 2 Vertical — and by six main winzes; these winzes have all reached the 66th level and have been suspended a short distance below it. No further sinking will be done at this point until such time as the Circular Shaft reaches the 52nd level and the new Auxiliary Shaft the 66th level. After that they will all be carried down together and the levels from them driven simultaneously, so that only about 150 feet will have to be driven from any one point before through communication is effected and through ventilation obtained.

By this means and with the help of fans, the adequate ventilation of the bottom workings should be assured and it is hoped that nothing in the meantime will occur to in anyway interfere with the rapid attainment of this object; it is anticipated that the scheme will be completed at or about the end of 1924.

In the meanwhile, the ore reserves — estimated at 420,774 tons (31-12-22) — will be depleted to the extent of 125,000 tons before development operations are resumed, but as these developments have in recent years been of such a favourable nature with extensive and valuable ore-shoots at the bottom levels, the time seems opportune to carry out this scheme at the expense of encroaching on the reserves to the extent mentioned. It is now being proceeded with, through communication having already been effected at the 66th level between Taylor's No. 2 and Bullen's No. 2 Main Winze — a distance of 2,658 feet.

At the 30th June 1923, the Circular Shaft had reached a depth of 4,054 feet below surface, having been sunk 933 feet and bricked 961 feet during the year; it is still being sunk in the southern dyke belt. Communication has been made at 3,898 feet with the 44th level crosscut west and an arched heading, 14 feet long, cut and completed at this level.

On the same date, the Auxiliary Shaft — a continuation of the Circular Shaft— had reached a depth of 388 feet below the 50th level; at 191 feet communication was effected with the 52nd level crosscut and a station excavated and timbered at this level. From a crosscut W. at the 60th level, the sinking of the lower portion of this shaft has been started and a station has been cut. It had reached a depth of 46 feet below this point on the 30th June last.

The deepest working level and the deepest point in the Mine are the same as last year, *viz.*, the 66th level, driving south from Taylor's No. 2 Main Winze and north from Bullen's No. 2 Main Winze, 3,109 feet vertically below sea level, and the sink of Oakley's No. 2 Vertical Shaft, 6,231 feet vertically below field datum or 3,264 feet below sea level.

### *Ventilation.*

In view of what has already been stated in regard to the scheme now in progress for the future working and ventilation of this Mine in depth, it is not necessary to again give details of the arrangements at present in force. The 50th and 60th level fans worked until May 1923, when they were replaced by two 50" fans situated north and south of the crosscut from Bullen's Incline Shaft at the 66th level. The downcast air is now drawn through that shaft to the 66th instead of leaving it at the 50th level, as formerly, thereby decreasing the temperature of the air in the lowest workings and greatly increasing the velocity of the ventilating current. The 84" Sirocco Fan at the top of Oakley's Shaft has worked more or less continuously throughout the year.

### *Reduction Department.*

The excellent results obtained by the all-sliming treatment continue to be a satisfactory feature of this Department. The third tube mill erected last year has been put into commission.

Magnetic separators in conjunction with blanket machines have been placed in the tube mill circuit and have resulted in increased efficiency. A "James" concentrating table successfully deals with the product from the magnetic separators.

From April 1st last, the gold returns have been augmented to the extent of 650-700 ozs. a month to meet the heavy expenditure now being incurred on capital account.

### *Nundydroog Mine.*

Up to a certain point, the development work in the northern section of the Mine has proved satisfactory, largely due to the results obtained on the East Lode—the discovery of which was mentioned in last year's report—between the 3,650 and 4,300 ft. levels. The ore-shoot, however, does not appear to extend to any great depth below this horizon, the 44th level having been driven through the same run of ground without encountering anything of real value. This is most disappointing but, from previous experience, may only be temporary, such ore-shoots frequently having poor and sometimes entirely barren patches interspersed between the payable areas.

In the southern section, a new development has to be recorded at the 44th level, Taylor's Shaft, which appears to be of a promising nature from the results so far obtained. What is much more gratifying and of much greater importance to the Company is the success attending the developments carried out by the Ooregum Company (on behalf of the Nundydroog Mines, Ld.) in this section at a depth of over 1,100 feet below the 44th level—the present deepest drivage. By extending the drive north from Bullen's Incline Shaft beyond the boundary at the 54th level—corresponding to what will eventually be Taylor's 56th level—quartz averaging 30 inches in width, assaying 1 oz. 15 dwts per ton, has been driven on for a length of 175 feet and is still holding. To get payable ore at this depth is an excellent sign and points to the conclusion that the ore-shoots dipping north from the Ooregum Mine are maintained after passing out of that property.

Although the total gold production exceeded that of the previous year by 107 ozs., the amount realized was less by £38,857, the average price obtained showing a decrease of nearly 12 shillings per fine oz., hence the reduction in the profit made of £37,100. Against this, the working costs were less by sh. 3/4 per ton.

A dividend of 10 per cent was paid compared with 15 per cent a year previously.

The reserves of ore at the end of 1922 were estimated to stand at 191,300 tons, or an increase of 16,100 tons.

The vertical depths below field datum of the three main winzes being sunk were as follows on the 30th June last :—

| | | |
|---|---|---|
| Taylor's ... ... | 4,233 ft. or 449 ft. below the 44th level. | |
| Kennedy's ... ... | 4,202 ,, or 389 ft. | do |
| Oriental ... ... | 4,064 ,, or 251 ft. | do |

At the same date, Henry Shaft had reached a vertical depth of 3,803 feet below surface, or 3,914 feet below field datum, the progress made in the twelve months being 478 feet. Bricking has been completed to a depth of 3,796 feet.

Besides the communications already made with the main mine workings at the 38th and 40th levels, a further holing has taken place with the 44th level crosscut west from Kennedy's section, thereby greatly improving the ventilation of the Mine.

Richards' Incline Shaft has been sunk to 227 feet below the 4,000 ft. level or a vertical depth of 3,643 feet below field datum.

Royalty has been paid by this Company for several years to the Windsor Trust, Limited, at the rate of sh. 4 per ton of ore taken from a portion of Tank Block and one penny per ton on all tailings treated. Following on negotiations with the Windsor Trust, a settlement has been effected by compounding these royalties for a sum of £12,000, which arrangement, it is stated, has proved advantageous to the Nundydroog Company.

### *Reduction Plant.*

To admit of a greater tonnage of old tailings sands being retreated and possibly still more coarse crushing being adopted in the mill, a fourth tube mill has been ordered and will be erected in due course. By using 14, 15 and 16 mesh screens in the mill, the duty has been raised to 4½ tons per head per day; 80 heads therefore deal comfortably with the increased tonnage.

The loss incurred in the treatment of the Sonnakuppam tailings, owing to their extremely foul state, has led to the temporary cessation of these operations. A further trial will be made when the plant admits of a greater tonnage being treated, as by this means the treatment costs should be less with a more reasonable prospect of profit; a limited quantity of the Sonnakuppam tank tailings will then be treated in conjunction with the others, when it is hoped the solutions, *etc.*, will not be so seriously affected.

A third clarifying tank for gold solutions has been added at the Extractor House and provision is being made for two more vacuum pumps which will speed up the time of treatment of the sands product.

### *Balaghat Mine.*

A large measure of success has attended the development work done on the ore body originally encountered in the 4,000 ft. level S. of Tennant's Main Winze and subsequently at the 41st, 42nd and 43rd levels. Since the beginning of 1923 however, the developments in the 44th level and below have not been so favourable, both the width and value of the quartz having diminished. This is disappointing but may only be temporary in view of the fact that the nature of these shoots is known to be somewhat indefinite. Schemes are now under consideration for an extended programme of exploration and, in this connection as well as to improve ventilation, the 4,000 ft. level from the Main Winze is being advanced northwards under Ogle's Main Winze, which will be sunk from the 3,175 ft. to communicate with it. Besides forming an additional outlet from the bottom of the Mine, this drive will be in a hitherto unexplored section of the property and it is hoped thereby that further ore bodies may be located.

The vertical portion of Henry Shaft at the south end of the property is now being retimbered and put in order. Later the shaft may be deepened for the purpose of improving the scheme of ventilation in hand and for carrying out exploratory operations in the upper part of this section. To effectually ventilate the bottom workings of the main part of the Mine, which have now reached a vertical depth of over 4,000 ft. further measures must be adopted if work in the future is to be efficiently proceeded with. It has been suggested that a large tunnel should be driven at the horizon of the 49th level to communicate with Henry Shaft, Nundydroog, portion of the downcast current being taken from this shaft and circulated by means of such an airway through the Balaghat workings. Whether this idea is feasible remains to be seen, but nothing definite has yet been decided upon. Existing arrangements may soon become inadequate, hence it is advisable to arrive at some conclusion in this respect regarding the future policy.

The output of gold in 1922 exceeded that of the previous year by 3,978 ozs., but the increase in value was only £1,923 owing to the drop in the market price, the average rate obtained being less by sh. 11/8 per fine oz. Dividends declared amounted to 20 per cent on the preference and 10 per cent on the ordinary shares against 22½ per cent and 12½ per cent, respectively, in 1921.

The ore reserves increased by 35,845 tons and were estimated at 116,139 tons on the 31st December last. The present rate of crushing is 4,000 tons per month.

The vertical depth below field datum of the deepest point in the Mine on the 30th June last was 4,201 feet equivalent to 4,540 feet on the underlie.

### *Reduction Works.*

The retreatment of the old tailings dumps at Nine Reefs and Road Block, started last year, has had to be suspended and the Dump Retreatment Plant temporarily closed down, while, it is stated, consideration is being given to a modification of the treatment with a view to improving extraction. The extremely complex nature of these sands has given rise to unexpected difficulties, but, from the experience gained and following further research work, there is reason to believe they will be surmounted.

### *Mining Rights.*

The transfer referred to in last year's report has been completed.

## VII.—Electric Power Supply.

### (a) Cauvery System.

The following information has been kindly furnished by the Executive Engineer, Dam Construction Division:—

### *Krishnarajasagara Dam.*

The capital outlay for the year is about Rs. 4,72,051 excluding the share of establishment charges on account of Compensation and Sanitation which are debitable to works against the final grant of Rs. 5,31,000.

*Dam Proper.*—The length of the Dam built to the end of 1921-22 was 6,100 feet. A further length of 400 feet on the north bank was founded during the year under report making a total length of 6,500 feet. With this length, the founding of the Dam proper is completed; the whole length is 107 feet above bed and it now remains to raise the Dam to its full height and give flank connections.

*Sluices.*—Some of the plus 12 scouring sluice gates continue to give trouble by the rollers dropping off. These are being replaced by rollers made in the local workshop.

*Waste Weir.*—The body wall of the waste weir was constructed over a length of 700 feet and brought up to plus 100 level. Further work is proceeding.

The work connected with the Low Level Canal Diversion, excepting the head-work, is almost completed.

A flood of 10·26 feet passed safely over the central weir gap and the bye-wash discharged to a height of 8·9 feet. This year's floods were the highest since the commencement of the work and amounted to about 120,000 cusecs. The river Hemavathi contributed the major portion of the flood, it being almost as high as in the year 1911.

The design of the parapet walls and sluice gates for the plus 80 waste weir are under consideration.

The following statement, kindly furnished by the Chief Electrical Engineer to Government, shows the number of motors in service and the power consumed by the different mines during the calendar year 1922. The operation of the Cauvery

Power Electric Plant was satisfactory and there were no serious stoppages due to interruption of service :—

| Name of Mine | Number of motors in service | Nominal H. P. | Rated H. P. | Average constant H. P. absorbed | Annual consumption in B. T. U. |
|---|---|---|---|---|---|
| 1. Mysore ... | 34 | 5,222 | 4,481 | 3,503 | 22,845,600 |
| 2. Champion Reef ... | 22 | 4,002 | 3,369 | 2,826 | 18,455,200 |
| 3. Ooregum ... | 29 | 4,890 | 3,623 | 3,257 | 21,244,100 |
| 4. Nundydroog ... | 27 | 2,999 | 2,389 | 2,027 | 13,035,300 |
| 5. Balaghat ... | 33 | 1,561½ | 1,451 | 1,292 | 8,489,100 |
| Total ... | 145 | 18,699½ | 15,313 | 12,905 | 84,069,300 |
| Total for 1921 ... | 118 | 16,608 | 13,804 | 11,491 | 75,096,500 |

### (b) Kolar Mines Power Station, Limited.

The following notes have been kindly furnished by Mr. G. W. Richardson, Chief Electrical Engineer, for the year ending 30th June 1923 :—

At the 30th June last, 152 motors with an aggregate horse-power of 10,390½ were connected to this Company's distribution systems and, of that number, 31 motors aggregating 7,160 H. P. were operating Winding Engines and Hoists, while the remainder, *viz.*, 121 motors with a total of 3,230½ horse-power, were being used to drive intermittent loads of other classes.

The consumption of power for different purposes during the year is given below in Board of Trade Units :—

| Intermittent Power. | Hoisting. | Lighting. |
|---|---|---|
| 2,471,695 | 3,904,360 | 521,070 |

Total Units sold ... ... 6,897,125

The rates charged for current were as follows :—

| | |
|---|---|
| Intermittent Power ... ... | * ·875 *d.* per unit. |
| Hoisting „ ... ... | + ·875 *d.* per unit. |
| Lighting „ ... ... | 4·500 *d.* per unit. |

* ·875 *d.* per unit to end of September 1922 and ·75 *d.* October 1922 to June 1923.
+ ·875 *d.* „ „ „ „ „ December 1922 and ·75 *d.* January to June 1923.

The horse-power of 150 motors, which were connected to the Cauvery System at June 30th, totalled 16,120 at Government ratings, or 19,490 at manufacturers' ratings. Adding the latter figure to the figures for the Kolar Mines Power Station, Limited, which are always taken at the makers' rating, a total of 29,880½ is arrived at as the total horse-power of motors in service on the Mines at 30th June 1923.

No serious stoppages owing to scarcity of water were experienced during the period in question.

## C.—MANGANESE, CHROME, MAGNESITE, ASBESTOS, MICA, KAOLIN OR CHINA CLAY, SOAPSTONE, SLATESTONE, LIMESTONE, GRAPHITE, COPPER, OCHRES AND CORUNDUM.

### 1. Manganese.

The number of mining leases and prospecting licenses current for this mineral during 1922-23 was the same as in the previous year, *viz.*, 2 and 10 respectively.

The quantity of ore extracted was 22,029·35 tons and that exported 93,490·81 tons against 16,430·33 and 16,937·18 tons, respectively, in the previous year. The royalty payable to Government on the ore exported is Rs. 35,222 against Rs. 8,249 in the previous year.

As usual, the bulk of the output of this ore was from the mining blocks owned by the United Steel Companies, Limited, in the Shimoga District.

Owing to the paucity of high grade ore in the mining blocks held by the said company, very large quantities of low grade ore were exported from their reserves during the year, amounting to nearly six times as much as that exported in 1921-22.

The following statement shows the quantities collected and exported during 1922-23 as compared with the corresponding figures for the past year:—

| Name of Lessee or Licensee | 1921-22 | | 1922-23 | | Number of Lease or License |
|---|---|---|---|---|---|
| | Collected | Sold | Collected | Sold | |
| | tons | tons | tons | tons | |
| The United Steel Companies, Limited. | 13,810·33 | 16,957·18 | 20,779·05 | 93,304·81 | M. L. 141, 142 and P. L. 589 |
| Mr. V. Manickavelu Mudaliar | 2,500·00 | ... | 600·00 | 186·00 | P. L. 588 |
| Mr. J. Burr ... ... | ... | ... | 25·00 | ... | „ 577 |
| Mr. Lakshminarayan Jois ... | ... | ... | 600·00 | ... | „ 596 |
| Mr. B. Hutchappa ... | 120·00 | ... | 25·00 | ... | „ 565 |
| Total ... | 16,430·33 | 16,937·18 | 22,029·35 | 93,490·81 | ... |

### 2. Chrome.

There were 9 mining leases and 2 prospecting licenses current for chrome ore during 1922-23 as against 8 mining leases and 1 prospecting license in the previous year.

The quantity of ore collected during the year was 17,783 tons and that exported 36,496·17 tons against 4,205·75 and 8,322·56 tons respectively in the previous year. The royalty payable to Government on the ore exported is Rs. 29,478 against Rs. 6,243 in 1921-22.

The greater portion of the output and export of this ore is from the Bhaktarhalli block in the Hassan District owned by Mr. V. Sundaramurthy Mudaliar. There was greater activity during the year on the blocks held by the Mysore Chromite, Limited, than in the previous year.

The following are the details in regard to the quantities extracted and exported as compared with the corresponding figures for the previous year:—

| Name of Lessee or Licensee | Number of Lease or License | District | Output | | Quantity Exported | |
|---|---|---|---|---|---|---|
| | | | 1921-22 | 1922-23 | 1921-22 | 1922-23 |
| | | | tons | tons | tons | tons |
| Mr. V. Sundaramurthy Mudaliar. | M. L. 158 | Hassan ... | 3,882·75 | 10,100 | 5,388·94 | 26,217·19 |
| The Mysore Chromite, Limited. | M. L. 147 & 155. | Mysore ... | 323·00 | 2,316 | 1,342·22 | 2,435·10 |
| | M. L. 156 | Hassan ... | ... | 2,727 | ... | 7,553·88 |
| Mr. Burr ... | P. L. 576 | Do ... | ... | 2,640 | ... | 290·00 |
| Messrs. Oakley, Bowden and Co. | P. L. 473 | Do ... | ... | ... | 1,592·40 | ... |
| | | Total ... | 4,205·75 | 17,783 | 8,322·56 | 36,496·17 |

### 3. Magnesite.

There were 4 mining leases current for magnesite as in the previous year, but the number of prospecting licenses fell from 4 to 2.

The quantity of ore extracted during the year was 121 tons and that exported 1,024½ tons against 1,775 and 1,852 tons in the previous year. The royalty payable to Government on the ore removed is Rs. 640 against Rs. 1,157 in the previous year.

The large decrease both in the output and export of this mineral is due to the temporary closing down of the mines in the Mysore Taluk, owned by Messrs. The Tata Iron and Steel Company, Ld.

| Name of Lessee or Licensee | Number of Lease or License | District | Output | |
|---|---|---|---|---|
| | | | 1921-22 | 1922-23 |
| | | | tons | tons |
| Messrs. The Tata Iron and Steel Co., Ld. | M. L. 148, 149 and 150. | Mysore ... | 1,750 | 16 |
| Mr. V. N. Krishna Iyer ... | ... | Hassan ... | 25 | ... |
| Mr. M. L. Vardhamaniah ... | P. L. 566 and 568. | Do ... | ... | 5 |
| | | Mysore ... | ... | 100 |
| | | Total ... | 1,775 | 121 |

### 4. Asbestos.

There was only 1 mining lease current for asbestos as in the previous year, but the number of prospecting licenses fell from 6 to 5.

The quantity of asbestos extracted was 256 tons against 184 tons in the previous year. No asbestos was sold during the year.

The entire output of asbestos was from the prospecting blocks held by Mr. M. L. Vardhamaniah, who has been utilizing this mineral for the manufacture of mill boards, boiler composition, etc. There was absolutely no activity in the exploitation of this mineral in the Kabbur Block held under a lease by Mr. V. N. Krishna Iyer.

The subjoined statement shows the output for 1922-23 compared with that for the previous year:—

| Name of Licensee | Number of License | District | Output | |
|---|---|---|---|---|
| | | | 1921-22 | 1922-23 |
| | | | tons | tons |
| Mr. M. L. Vardhamaniah ... | P. L. 566, 567 and 598. | Hassan ... | 150 | 256 |
| Mr. V. N. Krishna Iyer... ... | ... | Hassan ... | 17 | ... |
| Mr. S. Rasool ... ... | P. L. 549 ... | Bangalore... | 17 | ... |
| | | Total ... | 184 | 256 |

### 5. Mica.

The number of prospecting licenses current for mica during 1922-23 was 4 against 3 in the previous year. A lease for 10 years was issued during the year over the Vadesamudram block in the Seringapatam Taluk in favour of Mr. A. Pitchaiya Naidu.

The quantity extracted during the year was 11,718 lbs. raw mica, 4,290 lbs. sheets, 1,524 lbs. discs and 16 cwts. of waste mica against 1,430 lbs. sheets, 5,127½ lbs. discs, 487 lbs. splittings, 2 tons of mica powder and 5 cwts. of waste mica and that exported was 4,414 lbs sheets, 6,157 lbs. discs, 606 lbs. rounds against 3,730 lbs. sheets, 6,362 lbs. discs, 487 lbs. splittings and 1,034 lbs. of mica powder.

Almost the whole of the output of the year was from the blocks held by Mr. Pitchaiya Naidu and the several quantities and qualities of mica, as stated above, have been exported to Gudur for sale, but, as reported by the lessee, the sale of the same has not yet been effected. On receipt of the sale accounts and purchaser's certificate, the royalty payable to Government will be assessed and recovered.

The following statement gives the details in regard to the quantities extracted as compared with that for the previous year:—

| Name of Lessee or Licensee | Number of Lease or License | District | Output | |
|---|---|---|---|---|
| | | | 1921-22 | 1922-23 |
| | | | lbs. | lbs. |
| Mr. A. Pitchaiya Naidu ... | M. L. 161<br>P. L. 604 | Mysore ... | ... | 11,718 raw<br>64,290 sheets<br>1,374 discs |
| Mr. V. N. Krishna Iyer ... | P. L. 350... | Hassan and Mysore. | 1,430 sheets<br>5,127½ discs<br>487 splittings<br>4,480 powder<br>560 waste | 150 discs |
| Mr. M. Srikantiah ... ... | ... | Hassan ... | ... | 1,792 waste |
| | | Total ... | 12,084½ | 79,324 |

### 6. Kaolin or China Clay.

There were 4 mining leases and 9 prospecting licenses for china clay current during the year as against 3 mining leases and 10 prospecting licenses in the previous year.

The quantity of china clay collected was 4,679 tons and that removed 4,413 tons against 2,274·50 and 2,396·50 tons, respectively, in the previous year. The royalty payable to Government on the quantity removed is Rs. 3,376-8-0 against Rs. 1,617-0-0 in the previous year.

In the matter of both the collection and the utilisation of china clay, the Kolar Brickmaking Company, Ld., who own two mining blocks, were leading as in the previous year. A small quantity is reported to have been used for the manufacture of slate pencils by two of the licensees in Tumkur.

Mr. V. Manickavelu Mudaliar, who holds a mining block for china clay at Golhalli reports that he has started the construction of his Porcelain Works at Yesvantpur.

The following table shows the details in respect of the output for 1922-23 as compared with that for the previous year:—

| Name of Lessee or Licensee | Number of Lease or License | District | Output | |
|---|---|---|---|---|
| | | | 1921-22 | 1922-23 |
| | | | tons | tons |
| The City Brick and Tile Works ... | M. L. 153 ... | Bangalore... | 350·0 | 1,180 |
| The Kolar Brickmaking Co., Ld. ... | M. L. 154 and 164. | Do and Kolar. | 1,890·0 | 3,472 |
| Mr. G. Chennaveerappa ... | P. L. 573 ... | Tumkur ... | 34·5 | 3 |
| Mr. J. C. Midford ... | P. L. 574 ... | Hassan ... | ... | 21 |
| Messrs. Abdul Rahim and Sons ... | P. L. 603 ... | Kolar ... | ... | 3 |
| | | Total ... | 2,274·5 | 4,679 |

### 7. Soapstone.

There were 6 prospecting licenses current for soapstone during the year as against 5 in the previous year. The quantity collected and removed was 114½ tons as against 169 tons in the previous year. The royalty payable to Government is Rs. 143 against Rs. 212 in the previous year.

The steady decline in the quantity removed and used for the manufacture of slate pencils is said to be due to the inrush of foreign pencils in India.

The following statement shows the details in regard to the quantities extracted and removed for 1922-23 as compared with that for the previous year:—

| Name of Licensee | Number of License | District | Output | |
|---|---|---|---|---|
| | | | 1921-22 | 1922-23 |
| | | | tons | tons |
| Mr. G Chennaveerappa ... | P. L. 597 .. | Tumkur ... | 87 | 44½ |
| Mr. T. L. Narasing Bhan ... | P. L. 592 ... | Do ... | 82 | 28 |
| Mr. J. Padmarajiah ... | P. L. 601 ... | Do ... | ... | 42 |
| Mr. V. N. Krishna Iyer ... | ... | Mysore and Hassan. | ... | ... |
| | | Total ... | 169 | 114½ |

### 8. Slatestone.

There was only 1 prospecting license current during 1922-23 over a block at Hatyal in the Tiptur Taluk.

A small quantity of 8 tons of slatestone was collected and removed as against 2½ tons in the previous year. The royalty payable to Government on the ore removed is Rs. 10.

### 9. Limestone.

As in the previous year, there were only 2 prospecting licenses current for limestone in the Bowringpet Taluk of the Kolar District.

The quantity collected and removed during the year was 686½ tons against 372½ tons in the previous year. The royalty payable to Government thereon is Rs. 686-7-10 against Rs. 372-10-0 in the previous year.

### 10. Graphite.

There was only 1 license current for graphite as against 2 in the previous year. There was no activity whatever during the year in respect of the exploitation of this mineral.

### 11. Copper.

There was only 1 license current for copper as against 2 in the previous year. No work was done on this block during the year.

### 12. Ochres.

There were 4 prospecting licenses current for ochres during the year as against 9 in the previous year. No work was reported to have been done on any of the blocks during the year.

The Mysore Pioneer Paints Company, Limited, who hold two of the blocks, report that they are going to take up shortly a detailed investigation of an area of about 400 square miles in the Shimoga, Chitaldrug and Tumkur Districts over which they have been granted exclusive rights for the quarrying of paint-materials.

### 13. Corundum.

The reservation of this mineral ordered in G. O. No. G. 24557-62 Geol. 47-18-11, dated 29th April 1920, was withdrawn during the year.

### 14. STATEMENT SHOWING THE DEMAND, COLLECTION AND BALANCE OF ROYALTY ON MINERALS OTHER THAN GOLD DURING THE YEAR 1922-23.

| Name of mineral | Balance due on account of the previous year. | Amout due for the current year. | Total | Collection | Balance | Remarks |
|---|---|---|---|---|---|---|
| | Rs. a. p | Rs. a. p. | Rs. a. p. | Rs. a. p. | Rs. a. p. | |
| Manganese ... ... | 3,618 1 9 | 35,221 13 4 | 38,839 15 1 | 34,461 1 4 | 4,378 13 9 | Almost the whole of the balance amount of royalty due is that payable on the ores removed or exported by the licensees and lessees during the quarter ending the 30th June 1923. |
| Chrome ore ... ... | 3,295 1 3 | 29,478 1 11 | 32,773 3 2 | 21,916 6 0 | 10,856 13 2 | |
| Magnesite ... .. | 208 6 6 | 640 3 3 | 848 9 9 | 780 2 0 | 68 7 9 | |
| Koalin ... ... | 401 6 10 | 3,376 11 3 | 3,778 2 1 | 2,057 8 1 | 1,720 10 0 | |
| Soapstone ... ... | 211 8 6 | 153 2 0 | 364 10 6 | ... | 364 10 6 | |
| Asbestos ... ... | 872 11 3 | ... | 872 11 3 | 872 11 3 | ... | |
| Ochres ... ... | 50 0 0 | ... | 50 0 0 | 50 0 0 | ... | |
| Limestone ... ... | 148 0 0 | 686 7 1 | 834 7 10 | 589 6 0 | 245 1 10 | |
| Total ... | 8,805 4 1 | 69,556 7 7 | 78,361 11 8 | 60,727 2 8 | 17,634 9 0 | |

## D.—INSPECTION OF MINES.

### 1. Official Duties, 1922-23.

These continue to be of an exacting and trying nature and fully occupy the time of the officers and establishment comprising the Department. The absorption of the Explosives Branch has added considerably to the work now undertaken both in regard to inspections of magazines, correspondence and routine matters connected therewith. To cope with the latter, Government were pleased in their Order No. I. C 1414-5 Geol. 8-22-8, dated 4th September 1922, to sanction the augmentation of the clerical staff by one which, as pointed out a year ago, had become an absolute necessity. By transferring the clerk attached to the abolished Explosives Branch, the extra expenditure involved in establishment charges is reduced to a minimum.

The constitution of the Department is as follows :—

| | |
|---|---|
| Chief Inspector of Mines in Mysore ... ... | Mr. R. Bocquet, J. P. |
| Inspector of Mines ... ... ... | „ L. H. Beckwith, A.R.S.M. |
| Assistant Inspector of Mines ... ... | „ C. E. Suryanarayana Rao. |
| Junior Inspector of Mines ... ... ... | „ K. Duraiswamier, B.A. |

The services of the Assistant Inspector of Mines have been placed at the disposal of the Mysore Iron Mines for a further period of one year with effect from the 1st May 1923.

Mr. K. Duraiswamier having successfully carried out and completed his period of training as a Probationer in this Department, has since been confirmed as Junior Inspector of Mines with effect from 21st September 1922 (*vide* G. O. No. 4093-4 Geol. 46-22-2, dated 23th December 1922).

### Leave.

No officer of the Department was away on leave during the period under review — official year 1922-23.

### *Changes in Staff.*

Consequent on the posting of Mr. C. E. Suryanarayana Rao, Assistant Inspector of Mines, to the Mysore Iron Mines for work under the Director of Mines and Geology in Mysore in connection with Ore operations, sanctioned in Government Order No. I. C. 1449-1503 I. W. 66-21-21, dated 6th September 1922, the following changes were approved of and received Government sanction :—

Mr. K. Duraiswamier, Junior Inspector of Mines, to act as Assistant Inspector of Mines, with effect from the 21st September 1922.

Mr. V. Narayana Rao, Explosives Probationer, served with notice of discharge on the abolition of the Explosives Branch, is kept on temporarily against the vacancy of Junior Inspector of Mines with effect from the 4th January 1923.

**Inspection Bungalow and Offices.**

These buildings have been maintained and kept in good order. They are periodically inspected by officers of the Public Works Department and the necessary annual repairs attended to. Through the courtesy of the Superintendent, accommodation has been found for the Inspector of Mines in a building belonging to the Nundydroog Company which, although conveniently situated, is very restricted in regard to space. Residential quarters are still to be provided for this officer on the Kolar Gold Field.

The annual inspection of the office was, as usual, carried out in March last and the registers and files were examined and found to be in order. As the opportunity occurs, obsolete records are being systematically destroyed, but, owing to the heavy increase in the number of papers annually dealt with, the sorting and indexing require much more time than can be generally spared. With the additional clerk now available—transferred from the abolished Explosives Branch—good progress has been made in this direction and it is hoped the work will shortly be completed.

The records, furniture, etc., of the office of the Inspector of Explosives in Mysore, Bangalore, abolished in Government Order No. I. C. 5306-66, Geol. 88-21-1, dated 27th June 1922, were checked and taken charge of on the 16th October 1922, and later were transferred to this office; all the available space in the two buildings is now occupied.

Systematic inspection of the mines on the Kolar Gold Field has been carried on throughout the year and much credit is due to the Inspector and Asst. Inspector of Mines for the thorough way in which this has been done, necessitating as it does much hard work under sometimes extremely trying conditions, owing to the great depth the workings have attained, their extent and the existing high temperatures.

Reviewing these periodical inspections, as well as from personal observation, I am able to state that the rules under the Mysore Mines Regulation IV of 1906, are closely adhered to with a few minor exceptions, which, when pointed out, are immediately remedied.

In regard to the mining industry outside the Kolar Gold Field area, the following inspections have been carried out during the year:—

*Shimoga District.*—The United Steel Cos. Ld., Workington Iron & Steel Branch (New Mysore Manganese Department).

| | | | |
|---|---|---|---|
| Shankargudda Block | Mining Lease | No. | 141 |
| Kumsi Block | ,, ,, | ,, | 142 |
| ,, Area, Coupe 8 | Prospecting License | ,, | 589 |
| ,, ,, Short's Block | ,, ,, | ,, | 590 |

A great deal of work has been done in the areas comprising mining leases Nos. 141 and 142, and several hundred thousand tons of manganese ore removed and transported to Shimoga to be shipped to England and the continent of Europe since these operations were first put in hand.

In the Chief Inspector of Mines' report for the year 1912-13, details are given of the areas then being exploited and the method of working the deposits after any payable exposure of manganese has been brought to light. These methods (open cut) vary only slightly; after the overburden or capping—sometimes containing much float ore—has been removed, the deposit is followed both laterally and downwards by excavations, leaving benches 4 to 6ft. wide every 10 to 12 ft. in depth. No undercutting of the permanent walls of these excavations is permitted, but to expedite the removal of an overburden consisting of soil and rubble it is advisable to allow this at times to be done. Accidents are few and far between—practically none from actual falls of ground—the lateritic walls and faces of the older excavations being just as sound now as when originally exposed, disintegration being extremely slow. Such being the case, vertical faces 18 to 20 ft. in height may be seen in some of the excavations, but generally they do not exceed 12 ft.

At the time of my inspection, work was being carried out in four different places on Mining Lease No. 141 and in one place on Mining Lease No. 142, but none of the operations was on a very extensive scale, although I was informed that they would be extended whenever the occasion arises. As a demand has arisen on the Continent for low-grade ore vaying from 36% to 40% manganese, the Company has recently been employed in collecting, transporting and shipping large quantities of this to Europe.

Exploratory work on Prospecting License No. 589 has revealed the existence of a deposit containing pyrolusite running 38 to 50% manganese and, in another part of the pit, an exposure of some good looking, massive manganese is to be observed. This deposit will be worked later when required.

On Short's Block, Prospecting License No. 590, the original pit has been extended in a southerly direction and a cutting eastwards put out some distance; a little float ore but no heavy manganese has been exposed. At the time of my visit, work was at a standstill owing to shortage of labour. The percentage of manganese in the ore exposed averages between 42 and 43. All the above-mentioned areas are served by the light railway (2 ft. guage), constructed by the United Steel Cos. Ld., running direct to the Shankargudda and Kumsi blocks from their yard at Shimoga, with a junction at Sheregere. In certain localities, a traction engine is employed to bring the ore down to the railway sidings and, at others, ropeways operating trucks on inclined planes.

The work is well-supervised by the officers of the Company, who visit the mines daily, and by overseers living on the spot. Due attention is paid to the rules under the Mines Regulation and operations are conducted in accordance with the Sections that apply to open-workings.

*Government Areas.*—The Iron Mines at Chattanhalli, adjoining the Kumsi Block, and the Limestone Quarry on the Shankargudda Range were also visited and inspected. At both these places a large amount of clearing, cutting and excavating has been done on systematic lines, the track with necessary sidings carried up to the top of Chattanhalli and over the Joga outcrop, the ore excavated, graded and stacked, each stack being numbered and lettered and a chart prepared showing quantity and grade, with the result that the particular kind of ore required can be immediately located, loaded into trucks and railed to Shimoga. The tramway to the mine is an extension of the United Steel Companies' light railway to the Kumsi Block over which running powers have been obtained by the Mysore Iron Mines. Between forty and fifty thousand tons of iron ore have been extracted from the Chattanhalli deposit of which between twelve to fifteen thousand tons had, at the time of my visit, been transported to Shimoga.

To get the limestone from the quarry on the Shankargudda Range to the manganese tramway below, a double-track incline, approximately 1,500 ft. long, has been constructed and laid up the slope with a gradient sufficient for the descending loaded truck to hoist the ascending empty one by gravity, the wire ropes being wound round a couple of drums at the top of the incline, the speed at which the latter revolve being controlled by powerful brakes.

The trucks are filled at the top through a hopper fixed in a platform, on to which the loaded bandies are brought from the quarry, and are discharged into bins at the lower end constructed above a siding. From here the limestone is run into wagons and railed to Shimoga.

Quarters for the overseers and employees have been constructed at both these places and excellent accommodation provided. The camps are well laid-out and situated in clearings made in the forest; a good supply of fresh spring water is available on the Shankargudda side, but has to be brought up to Kumsi in tanks by rail from the pumping station lower down the line.

Bangalore and Kolar Districts.—The Kolar Brickmaking Co., Ld.

| | | |
|---|---|---|
| Karadibande Block, Mining Lease | No. 154 | Kaolin. |
| Tinnalu ,, ,, ,, | No. 164 | |

The workings on the former block have been inspected twice and on the latter once during the year 1922-23.

They consist in each case of a pit, or excavation, starting from surface, which follows the deposit of clay outwards and downwards in any required direction, after taking and testing samples of the kaolin exposed. In this manner the particular kind of clay wanted is located and dug out, being carted to either Malur or Devangundi (M. & S. M. Railway) and then railed to Marikuppam.

Neither of these excavations is very extensive, being about 150 ft. long, 75 to 100 ft. wide and less than 20 ft. deep at the lowest point. Drains have been cut round them to prevent the influx of storm water and the overburden — mostly a capping of laterite — banked up round the top as a precautionary measure. The work is being carried out by contractors, orders being given to excavate and cart the clay as required, hence the output varies considerably; operations are more or less at a standstill during the rainy season. The varieties of clay obtained are used for making ordinary bricks and tiles, firebricks and liners for furnaces, crucibles, etc.; both in regard to quality and price I am informed that the produce compares favourably with that obtained elsewhere.

The contractors having been given, more or less, a free hand are inclined to adopt methods in excavating the mineral which do not quite comply with the rules. This has been pointed out and instructions issued to them that benches should be cut systematically after removing the overburden and no face should exceed 12 ft. in height.

Mysore District.—Chrome ore and Magnesite.

Solepur Block, Mining Lease No. 148 } Messrs. The Tata Iron & Steel Co., Ld.
Dodkattur ,, ,, ,, No. 149 } Messrs. The Tata Iron & Steel Co., Ld.
Dodkanya ,, ,, ,, No. 150 } Messrs. The Tata Iron & Steel Co., Ld.
Shinduvalli Block, Mining Lease No. 147 } Messrs. Oakley, Bowden & Co.
Chickattur ,, ,, ,, No. 155 } Messrs. Oakley, Bowden & Co.

During the first week of July 1923, inspections of the above blocks were carried out, Messrs. Oakley and Narasimha Iyengar, Managing Director of Oakley, Bowden & Co., and local Manager of the Tata Iron & Steel Co., respectively, being present.

With the exception of building parapet walls round the excavations made during the course of operations, no work is at present being done on the first three blocks mentioned, permission having been obtained from Government by the firm to suspend operations—the mining of magnesite—until the end of 1924 on the payment of dead rent.

Many fairly extensive excavations exist, especially on the Dodkanya block where there is also a large cutting, and, from these, limited quantities of magnesite have been extracted, carted to Kadakola (Mysore Railways) and sent to the Tata Iron and Steel works.

From the amount of work done, the Dodkanya deposit has given the best results and, when operations are resumed, will probably again form the chief source of production. Both Dodkattur and Solepur have yielded a certain quantity of average grade magnesite and may be worth prospecting still further at some future date.

The sides of the larger excavations, containing pits exceeding 10 ft. in depth, are all protected by dry stone parapet walls, 3½ ft. in height, forming a very effective barrier. This work has been thoroughly and systematically carried under the direct supervision of Mr. Narasimha Iyengar, to whom much credit is due.

The Shinduvalli Mine, which was formerly one long open working following a run of chrome ore from surface to a depth in places of over 100 ft. with over-hanging walls, has now been timbered and filled with "mutti" to within a reasonable distance of the bottom workings leaving a few shallow pits in the northern half of the block and a couple of shafts in the southern half which are now down to water level—a distance of 112 ft. below surface. From these shafts, drives north and south are being put out leaving a bench of ground above as a protection. Later the benches containing payable ore will be removed and the resultant excavations timbered and filled. It is gratifying to note that the work is being carried out on much more systematic lines than formerly with due regard to the safety of the employees. Considering the difficulty in obtaining supplies of timber, rails, etc., in such an out-of-the-way spot at reasonable prices, Mr. Oakley and his overseer, De Costa, are to be congratulated on putting the mine into a workable condition.

On the Chickattur block, further south, no work of any importance has been done during the past few years and the prospects do not appear to be over encouraging following on the sinking of some trial pits and trenching. The pits and other excavations, exceeding 10 ft. in depth, were not adequately protected at the time of my visit and orders were given on the spot to the overseer by Mr. Oakley to have the defect immediately remedied.

No accidents of any description have been reported as having happened during the year 1922-23 on any of these blocks.

Out of the 181 accidents reported in the year 1922 on the Kolar Gold Field, enquiries were held in connection with 178 cases, including all the fatal and serious accidents, and also into any accidents reported as trivial in which a breach of the Mining Rules was committed or suspected. The office routine work has been regularly attended to and kept up-to-date, the existing staff having their time fully occupied.

The following table shows the number of examinations held and certificates granted up to the end of the year:—

| Year | Mestris | | Blasters | | Engine drivers | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | | First class | | Second class | |
| | Number examined | Number passed | Number examined | Number passed | Number examined | Number passed | Number examined | Number passed |
| Total up to June 30th 1922 ... | 11,634 | 11,366 | 8,084 | 7,711 | 305 | 305 | 102 | 102 |
| For 1922-23 ... | 245 | 245 | 189 | 181 | 17 | 17 | 11 | 11 |
| Total ... | 11,879 | 11,611 | 8,273 | 7,892 | 322 | 322 | 113 | 113 |

On application and after verification, 79 duplicate tickets (discs) were issued to mestris, 3 to blasters and one to an engine driver (first class), the originals, it is stated, having been lost by the applicants.

**Inspection of Mining Accounts.**

In compliance with Government Orders No. Fl. 2664-8—Geol. 35-17-3, dated 28th November 1917 and No. 22878-9—Geol. 115-17-5, dated 8th April 1919 the annual inspection of the books and accounts of the Gold Mining Companies was conducted by the Assistant Comptroller to the Government in association with the Chief Inspector of Mines in Mysore on the 19th and 20th December 1922 at the office of the Champion Reef Gold Mines of India, Ld., Champion Reef. Besides the accountant of the Champion Reef Mine, the services of the Resident Auditor, Messrs. John Taylor & Sons' Committee, and his assistant were placed at the disposal of the Assistant Comptroller. The statements of production and royalty for July and August 1922 were verified and checked with the several books and daily records maintained. From the report sent to Government by the Comptroller, it is inferred that the result of the Assistant Comptroller's inspection proved satisfactory in every way.

### II. Labour Employed.

The number of persons employed in the Mining Industry in 1922 was 24,964 as against 25,596 in the previous year showing a decrease of 632.

Of this number, 23,297 were employed in Gold Mining against 23,344 in 1921, 733 on Manganese against 643, 229 on Chromium against 374, 73 on Asbestos against 283, 70 on Kaolin against 154, 64 on Magnesite against 237, 49 on Limestone against 11, 239 on Iron ore against 355, 41 on Soapstone against 143, 24 on Slate against 3 and 15 on Copper against the same number in the previous year.

On Mica 122 persons were employed and 8 on Graphite.

Of the 23,297 persons employed in Gold Mining, 388 were Europeans, 399 Anglo-Indians and 22,510 Indians, a total of 12,555 being employed below ground and 10,742 on surface work; of the latter, 1,499 were women and 750 children under 12 years of age.

*Hours of Labour.*—For many years past the same system has been adhered to on the Kolar Gold Field, both underground and on surface, and has been found to give general satisfaction.

In regard to the former, the working day of 24 hours is divided up into three shifts of 8 hours each starting at 7 o'clock in the morning, 3 in the afternoon and 11 o'clock at night. The variation in these hours is only slight and may amount to 30 to 45 minutes each side of the time fixed according to the number of persons to be dealt with; as the majority of persons go underground morning shift, it is obvious that the time required to send them down and bring them up again exceeds that on the other two shifts. In cases of emergency, persons might be called upon to work more than 8 hours at a time below ground, but this is not frequent. In fact the reverse is more often the case, 4 to 6 hour shifts then being the rule. Towards the end of the month more especially, to make up for loss of time, contractors are apt to either induce or permit their coolies to work a "double" and sometimes three shifts in succession. This practice is objectionable owing to the great depth and heat of these mines and has been put a stop to as far as possible, but can only be eliminated with the co-operation of the underground staff. No women, or children under 12 years of age, are allowed to work underground.

On surface, the hours of labour on Company account are from 7 A.M. till 5. P.M. with an hour's interval at noon; overtime is paid for at increased rates. Night work in the shops is of rare occurrence. In the mills, cyanide and tub-mill plants, engine houses (winders, compressors, etc.,) and boiler plants, 8 hour shifts are worked and correspond in time to the change of shifts underground. Contractors' coolies may have to work, on occasions, for more than 8 or 9 hours at a stretch according to the nature of the contract, but this is counterbalanced by the number of short shifts put in every month.

The relationship between employer and employee is on the whole quite satisfactory, adduced from the fact that large numbers of the latter have been working in and on the Mines for many years, are content with the wages paid them and the conditions under which they are employed and the way their welfare is generally looked after. If such were not the case, they would probably go elsewhere. Disturbances of any magnitude are few and far between; those that have occurred in the past were invariably traced to the disaffection of a few and not to the masses in general. Known bad characters and habitual offenders are liable to be served with undesirable notices to quit the Field, this authority being vested in the Special Superintendent of Police.

The average wages paid per month to employees — both European and Indian — may be seen in the statement appearing in Table 5 at the end of this report. A bonus is also granted to all employees who in a month of 27 working days put in 25 shifts and in one of 26 working days, 24 shifts. Free medical attendance is given in all cases of sickness with a daily allowance while of duty. The Scheme of Compensation for injuries in accidents is referred to elsewhere. Rice and fuel are supplied at concession rates and a free and adequate supply of filtered water is available in all the cooly lines, colonies, etc.

The working of the provisions of the Mines Regulation and the rules thereunder regarding the safety of the workmen employed — both underground and on surface — is satisfactory and receives constant attention. Owing to the prevalence of rock-bursts, precautions are taken in the methods adopted for the removal of orebodies and the support of the excavations made, in the sinking, timbering, bricking or concreting of shafts and the general support of all underground workings which are far in excess of what would otherwise be either necessary or advisable. In consequence, the expenditure involved by these items is very heavy and is a continual drain on the resources of the Companies.

The ventilation of the underground workings of the Mines is carried out partly by natural and partly by mechanical means, powerful fans — electrically driven — being installed where necessary, *i. e.*, both in the main downcast and upcast airways. By this means, circulation of the atmosphere is guaranteed in the lower workings, while, by a system of doors and stoppings, the air-currents can be controlled and diverted in the required direction. Very high rock temperatures having been encountered in depth, the question of cooling the downcast air has been under consideration for some little time past. This problem represents many difficulties, the outlay for the requisite plant being considerable and therefore hardly justified unless future prospects are bright and encouraging.

Due regard is paid to sanitation, each Mine having its sanitary staff, both above and below ground, under the general control of the Chief Medical and Sanitary Officer and his assistants; the work is carried out in a thoroughly efficient and systematic manner, epidemics being of rare occurrence.

For the prevention and control of fires underground, fire extinguishers are provided at the principal stations and water is laid-on through all the main workings. A supply of pure drinking water is also provided at convenient places, ice being sent down daily to cool it where necessary.

## III. Accidents.

### (a) *Statistics for the year 1922.*

The total number of accidents reported for the year 1922 was 181 against 182 during the year 1921.

Of these accidents:—

44 were fatal,
131 were serious, and
6 were non-mining.

Total ... 181

The total number of fatal and serious accidents was therefore 175 being at the rate of 7·01 per 1,000 persons employed.

The corresponding figures for the year 1921 were 173, a rate of 6·76 per 1,000 persons employed.

The reduction in the total number of persons employed in the industry accounts for the slight increase in the above rate.

Of the total number of accidents reported for the year 1922, *viz.*, 181, enquiries were instituted in 178 cases and results recorded, while 75 inspections were held covering all the accidents of any importance.

Of the above 175 separate accidents:—

19 or 10·86 per cent were due to negligence,
19 or 10·86 per cent were due to recklessness, and
137 or 78·28 per cent were classed as unavoidable.

The corresponding figures for the year 1921 were:—

14 or 8·09 per cent due to negligence,
25 or 14·45 per cent due to recklessness, and
134 or 77·46 per cent classed as unavoidable.

In the 44 fatal accidents, 72 persons were either killed or died from the result of injuries received, which gives a mortality of 2·88 per 1,000 persons employed as against a mortality of 2·66 per 1,000 persons employed during the year 1921.

The death rate in the Gold Mines, which, as usual, employed the greater proportion of the labour, was 3·09 per 1,000 against 2·91 per 1,000 in 1921.

The increase in the death rate (Gold Mines) can be entirely attributed to the greater number of fatalities due to rockbursts, which rose from 28 to 36. The unfortunate and distressing accidents due to this cause are a source of continual trouble, anxiety and expense; without them the toll of human life would become a very moderate one and compare favourably with any other mining field of similar extent. It will be noticed that exactly 50 per cent of the total fatalities in 1922 was due to rockbursts.

There were 8 individual accidents involving two or more fatalities, 1 of these occurring at the Mysore Mine, 2 at Champion Reef, 2 at Ooregum, 2 at Nundydroog and 1 at Balaghat. In these 8 cases, 36 persons lost their lives, compared with 9 and 29 respectively in 1921, the six most serious accounting for 5, 7, 11, 3, 3 and 3 fatalities.

In the 11 separate accidents due to rockbursts, 36 persons were killed compared with 13 and 28, respectively, in the previous year. Of the 11 separate accidents, 2 took place at Mysore, 4 at Champion Reef, 1 at Ooregum, 3 at Nundydroog and 1 at the Balaghat Mine.

Of these, the five most serious occurred at Mysore, Champion Reef and Nundydroog resulting in the loss of 5, 7, 11, 3 and 3 lives respectively.

Five fatal accidents due to explosives took place underground involving the death of 7 persons, as against 8 and 13, respectively, in the previous year. All these cases were due to a breach in one form or other of the Mining Rules—Section XIV, Blasting.

Overwinds resulted in one serious accident, one person being injured, while seven persons were killed by falling away in shafts, stopes and winzes in seven individual accidents.

Of the 44 fatal accidents in 1922:—

25 or 56·82 per cent were unavoidable,
8 or 18·18 per cent were due to recklessness, and
11 or 25·00 per cent were due to negligence.

Of the 131 non-fatal accidents:—

112 or 85·49 per cent were unavoidable,
11 or 8·40 per cent were due to recklessness, and
8 or 6·11 per cent were due to negligence.

### Classification of Accidents in 1922.

| | Fatal accidents | Non-fatal accidents | Deaths | Serious injuries |
|---|---|---|---|---|
| 1. Air blasts (rockbursts) ... ... | 11 | 36 | 36 | 52 |
| 2. Falls of rock ... ... | 3 | 22 | 3 | 23 |
| 3. Falling in shafts, stopes, etc. ... | 7 | 8 | 7 | 8 |
| 4. Explosives (misfires, etc.) ... | 5 | 6 (a) | 7 | 7 (a) |
| 5. Trucks and tramways ... ... | 1 | 6 | 1 | 6 |
| 6. Run over or struck by skips or cages. | 1 | 1 | 1 | 1 |
| 7. Hoisting ... ... ... | 5 | 5 | 5 | 7 |
| 8. Other machinery ... ... | 3 | 3 | 3 | 3 |
| 9. Falls of rock and materials in shafts. | 3 | 3 | 3 | 3 |
| 10. Ropes and chains breaking ... | 0 | 0 | 0 | 0 |
| 11. Other causes ... ... | 5 | 41 | 6 | 41 |
| Total ... | 44 | 131 | 72 | 151 |

(a) Includes one on surface.

### Non-casualty accidents reported under Rule 165 of the Mysore Mining Rules.

There were 17 accidents reported under this head caused as follows:—

| | |
|---|---|
| (1) Engine running out of control ... ... ... | 0 |
| (2) Fracture of essential part of winding engine, crank shaft, couplings, bearings, gearing, clutch, drums or drum shafts ... | 0 |
| (3) Fracture of winding rope or its attachments to skip, cage or drum | 4 |
| (4) Fracture of pit-head sheave or axle ... ... ... | 0 |
| (5) Failure of efficiency of brake ... ... ... | 0 |
| (6) Failure of safety catch to act when required ... ... | 0 |
| (7) Failure of device for prevention of overwinding or of detaching hook to act when required ... ... ... | 0 |
| (8) Overwinding of cage or skip ... ... ... | 12 |
| (9) Bursting of anything containing steam, compressed air or other substance at high pressure ... ... ... | 1 |
| Total ... | 17 |

Penalties were inflicted in 9 cases and varied from fines of Rs. 2 to Rs. 35 in 5, reduction of pay in 1 and dismissal in 3 cases.

### (b) Compensation for injuries received in Accidents for the year 1922.

This scheme, inaugurated in January 1915, has continued to work well and the conditions laid down have been found satisfactory, relief in a very tangible form being afforded to the sufferers.

The following figures, kindly furnished by the Secretary to the Kolar Gold Field Mining Board, again show that there is a large excess of disbursements over income, due mainly — as stated a year ago — to the extra benefits introduced on the 1st May 1920 whereby full pay is granted in all cases of temporary absence from work through accidents. Under this head 2,135 more cases, classed "Trivial," were treated with a corresponding increase in the amount paid of Rs. 14,075-9-0, the total deficit on the year's working — contributed by the Companies — amounting to Rs. 1,22,627-0-0.

| | Rs. | a. | p. |
|---|---|---|---|
| Total premia collected ... | 51,336 | 13 | 0 |
| Compensation paid:— | | | |
| 1. Daily allowance for temporary absence ... ... | 1,53,788 | 8 | 0 |
| 2. Partial disablement ... ... ... | 5,059 | 11 | 0 |
| 3. Total do ... ... ... | 2,821 | 2 | 0 |
| 4. Fatal ... ... ... ... | 12,294 | 8 | 0 |
| Total ... | 1,73,963 | 13 | 0 |
| Excess of disbursements over income during the year ... | 1,22,627 | 0 | 0 |

The figures in the above statement speak for themselves, over 88 per cent of the total amount distributed being accounted for by item No. 1, showing the advantage taken of this comparatively new clause in the scheme and the benefits accruing from it.

Motor ambulances are provided by each Company to convey the sick and injured to and from hospital.

### (c) Notes on Accidents during the official year 1922-23.

There were eleven accidents involving the loss of two or more lives during this period; these accounted altogether for fifty-one fatalities, as against eight accidents and twenty-four fatalities during the previous official year.

The eleven accidents are classed as follows:—

| Cause | Number of accidents | Number of fatalities |
|---|---|---|
| Rockbursts ... ... ... ... | 8 | 45 |
| Explosives ... ... ... ... | 3 | 6 |
| Total ... | 11 | 51 |

### Rockbursts.

Considering the measures adopted and the amount expended in recent years to prevent, if possible, the occurrence of rockbursts, or at any rate minimize their effects, the results from the point of view of fatal and serious accidents during the past official year have been extremely disappointing and are a very disquieting feature in the working of these Mines. Not one of them seems to entirely escape the consequences attending these phenomena, but some suffer worse than others greatly adding to the many difficulties encountered.

According to the classification by intensity — *vide* notes on Meteorology and Seismology — the number of heavier shocks recorded (over 1 m/m) was again above normal; in the case of those with a throw of more than 3 m/m, the normal was exceeded by 20 — 59 shocks against a normal of 39. All these would come under the heading of heavy or very heavy rockbursts.

During this period, the number of fatalities in the 16 accidents reported from this cause has been exceptionally high, totalling 53. Several of these accidents have likewise been of an exceedingly distressing nature, owing to the uncertainty prevailing regarding the fate of the persons working in the areas affected. However it speaks well for the courage and perseverance of those concerned — on many occasions at great personal risk — that no hesitation has ever been shown in the carrying out of the necessary relief or rescue operations following such occurrences and many lives have thereby been saved.

From 1st July 1922 to 30th June 1923, there were eight rockbursts which caused 2 or more fatalities, the total number of fatalities in these eight instances being 45.

Three of these, causing 7, 11 and 9 fatalities respectively, occurred in the Champion Reef Mine.

Three — 8, 3 and 3 fatalities — in the Nundydroog Mine and one each in the Mysore and Balaghat Mines resulting in two fatalities individually.

On 26th August 1922 Tennant's Main Winze, Balaghat Mine, was wrecked from the 42nd to the 43rd plat and two timber coolies, who were cutting hitches for the timbers in the latter place, were killed — Accident No. 106 of 1922.

The winze had to be retimbered practically from the 42nd to the 43rd level, but with 10″ instead of 8″ timbers.

The rockburst occurred in the hanging-wall of the winze in a similar manner to that reported in Accident No. 177 of 1921 when 5 men were killed during the sinking of the winze between the 42nd and 43rd levels.

The displacement of both horizontal and vertical styles of the Seismograph in this instance was 3 m/m.

The same type of rock has been encountered in other shafts, far away from stoping areas, notably in Richards' Shaft, Nundydroog Mine. After causing much damage to the shaft timbers and some loss of life during sinking operations, the ground seemed to alter somewhat and settle down; it has given no trouble since. It is probable that something similar will happen in this case.

On 18th September 1922 (Accident No. 119), three heavy rockbursts were recorded at the Kolar Gold Field Observatory as follows :—

| Time | | Displacement Hor. Style | Displacement Ver. Style |
|---|---|---|---|
| Hours | Min. | m/m | m/m |
| 6 | 0·33 | 1·2 | 1·0 |
| 6 | 3·80 | 1·2 | 1·2 |
| 6 | 3·83 | 12·0 | 2·0 |

causing much damage to Glen Shaft, Champion Reef Mine, from about 40 ft. above the 55th to the 57th level. For 80 ft. above and below the 55th level the shaft was absolutely wrecked, all the timbers being broken or knocked out. The 55th plat timbers collapsed entirely. From the chute below the 55th plat, the shaft was not so badly damaged but had to be retimbered.

The burst occurred entirely in the hanging-wall, from which a large quantity of rock was thrown out; the footwall does not appear to have been affected at all.

Besides the shaft, a back stope just N. of the plat at the 55th level, was so badly damaged that a large cavern was formed in its place.

This stope, which had been worked by hammer drills from the 55th to the 54th levels, was filled with broken quartz that was being drawn through chutes at the bottom as required. The back of the level timbers, holding up this broken quartz, were knocked out or broken and the level filled with the quartz, while big slabs of the hanging wall were also blown out.

Just to the S. of the 55th plat, the hanging wall of an air-way between the 55th and 54th levels was smashed and the rock that fell almost completely blocked the level.

There were nearly 30 persons at the 55th plat at the time of these rockbursts. These men had left work and were waiting to get the small riding cage to take them to the 41st plat.

The "rangers" in the plat were dislodged letting down the brow-set which completely cut off the plat from the crosscut. Two men were caught and killed in the plat and several were struck and partly buried by rock in the crosscut.

The rest, some of them injured, were cut off by falls of rock to the N. and S. of the crosscut in the small space between.

When the rescue party arrived at the 55th level, a small opening was made from the south side and 21 men were got out alive. In the evening of the same day, 2 more men were recovered alive but there were still four others missing who could not possibly be living.

Of the 23 persons rescued, 9 were admitted in hospital (2 subsequently dying), 1 case being classed as serious and 2 under observation.

Of the two men killed in the plat, the body of one was recovered on the 27th September but, as there were no signs of the other, it was decided, owing to the dangerous state of the shaft above the 55th level, not to risk other lives at this spot but to retimber and make good the shaft from 50 ft. below the 54th level downwards, the result being that the last body was not recovered until the 10th November.

Two stuff coolies had been engaged in tramming from the stope in the N. drive and were buried there. The quartz from the stope continued to run into the level as fast as it could be cleared and, as large slabs of the hanging-wall — which had to be blasted — came with it, the recovery of these bodies took a very long time, one being found on the 27th October and the other on the 11th December.

At the 57th plat, a stuff cooly was killed being struck and buried by small pieces of rock just beyond the timbers in a short crosscut west of the plat. His companions on the ladder below the plat were not injured.

The total number of fatalities in this accident was therefore seven. It is several years since the shaft was sunk and timbered below the 54th level and there had previously been no sign of the hanging-wall bursting in this way. It has been in constant use the whole time and kept in a thorough state of repair, the roads, plats and ladder-way all being close-timbered.

Lately a small amount of stoping had been carried out to the S. of the shaft above and below the 53rd level, both N. and S. between the 54th and 55th levels and to the N. between the 50th and 51st levels — the greatest length being 225 ft. between the 53rd and 54th levels just S. of the shaft.

As the shrinkage method had been employed, which does not allow of there being any large open spaces, and as packed pigstyes had been put up from level to level every 50 ft. along the stopes, no such trouble was anticipated. The lode at these levels is only a few feet away from the shaft in the hanging-wall and, at the south end of this short shoot of quartz, is intersected by a big cross-course or slide. These two circumstances probably had much to do with the wrecking of the shaft, owing to local stresses and strains being set up following an imperceptible movement of the ground along the slide.

No further work will be done in this area for the time-being, except shaft repairs and the clearing and retimbering of the levels and stopes damaged or otherwise affected.

Early on the morning of the 20th September 1922, a rockburst, which displaced both the horizontal and vertical styles of the Seismograph 2 m/m, affected the hanging-wall of Oriental Main Winze, Nundydroog Mine from the sink (49 ft. below the 44th level) for 35 ft. upwards. (Accident No. 121 of 1922.)

The winze (9′ 6″ × 5′ inside timbers) was timbered with 8″ sets, 4′ 6″ between centres, and had bearers—from N. to S., not from foot to hanging-wall — every five sets; the lowest bearers were only 10 ft. from the sink.

Rock was forcibly ejected for from 2 to 4 ft. behind the timbers in the middle of the hanging-wall and for a lesser distance towards each end of the winze. The bottom hanging-wall bearer and set (not lagged) were knocked out, the next hanging-wall plate was broken and thrown against the foot-wall (letting the lagging planks down) and the third hanging-wall plate was broken but still in place.

There were 8 men in the sink at the time of whom 3 were killed, 1 was buried for some hours and rescued uninjured, 2 others were partly buried and injured and 2 more were seriously injured.

The sink of this winze was at least 600 ft. below any stoping areas and away from all excavation work.

At 8-37 the same morning—20th September—another very heavy rockburst was heard and felt all over the Field. The displacements of horizontal and vertical styles of the Seismograph were 24 and 3 m/m, respectively.

The 39th, 40th, 41st and 42nd levels just N. of Garland's Shaft, Champion Reef Mine, were affected by this rockburst, the 39th and 42nd levels only slightly, but the 40th and 41st levels seriously. (Accident No. 124 of 1922.)

In the 40th level, machine men with two rock drills were finishing off, by underhand stoping, the last few feet of a slice of lode that had been worked by rill stoping from the 41st to practically the 40th level.

Where the quartz had been entirely removed in this stope, black-rock coolies were packing a pigstye support just below the 40th level. Timber coolies also were repairing the level and preparing for the starting of stoping operations (further N.) at the back of this level.

Altogether there were about 30 mestris and coolies working in the 40th level just N. of Garland's Shaft. There were also 3 timber coolies in a pass, between the 40th and 41st levels, repairing a black-rock box to the N. of it and fixing a ladder-road preparatory to the stoping of the last slice of the pillar to the S. by machine drills.

In the 41st level there were several stuff coolies at work.

Besides the above, the foreman, J. A. Fernandez and black-rock miner, A. Pavey, were present in the 40th level.

The lode above the 40th level at this point had been stoped in some places right through to the 39th level and in others only part-way up, but, for the whole length, there were covered stull timbers with filling upon them and also a few pigstye sets. It was the same at the 41st level.

When the rockburst occurred, some of the timbers were broken or knocked out, while rock from the hanging and foot-walls came down with them.

The 40th level, from 120 ft. N. of Garland's Shaft, was choked for a distance of 90 ft. and damaged for a further 50 ft.; in these 90 ft., 8 of the 11 fatalities occurred, the other 3 taking place in the level below.

The 41st level was choked for 50 ft. starting at 150 ft. N. of Garland's Shaft; on the S. side of the choke by rocks and debris and on the N. by the filling from the broken black-rock box.

Relief gangs went down to these two levels directly the news was received on surface and, in a short time, 25 persons were rescued and sent to hospital; the injuries of 2 were classed as serious, 2 as under observation, while 5, classed as trivial, were admitted as inpatients and 13 were treated as out-patients, 3 others being discharged the same day after examination.

It was known that several persons were entombed, 2 of whom could be heard talking and, after a roll-call had been taken, it was found that 11 men were missing, 3 of these being in the 41st level, 3 in the pass between the 40th and 41st levels and 5 in the 40th level.

Of these, the bodies of 4 were extricated by midnight, including A. Pavey, who could be touched and was talking for some hours but who died before he could be released. Another man at the 41st level could be heard for many hours, but also succumbed before anybody could get at him.

Work was carried on continuously in shifts of six hours duration on each side of the blocks at both levels until all the bodies had been recovered, but it was not until the 28th of the month that the last of the bodies of the three men in the pass was brought to surface. The block-rock box to the N. of this pass had broken and a considerable amount of the filling from the box ran into it besides some large rocks (which had to be blasted) that came away from the hanging-wall just below the 40th level and some quartz from the pillar of lode.

Great credit is due to all concerned for the manner in which rescue operations were conducted and brought to a successful conclusion, especially as a similar accident was engaging their attention elsewhere at the same time.

In 1916, following a series of bad accidents from rockbursts, it was decided that the wisest policy for the future working of the Mine would be to leave a bar of ground, 200 ft. deep, in which no stoping operations should, for the time being, be carried out; this bar extended from one end of the mine to the other between the 39th and 41st levels.

Besides this, certain blocks were marked out as lode pillars from the 41st to the 50th levels which had to be temporarily left unworked. Subsequently (at the end of 1920), by which time the available reserves had been greatly depleted as a result of poor developments, permission was sought for the resumption of operations on the pillars of lode locked up in the area mentioned. A thorough inspection of the locality between Garland's and Glen Shaft from the 38th to the 51st levels was carried out and it was decided to grant this permission, subject to certain reservations and stipulations being complied with and the sanction of the Director of Mines and Geology obtained.

The scheme, briefly, was to gradually stope out the payable lode pillars between the above levels, working from south to north—*i.e.*, from Garland's to Glen Shaft—only one stope to be worked above or below each level at any one time south of a line drawn from the 38th to the 52nd level, the work to be stopped in any stopes or levels should further rockbursts occur.

Although minor rockbursts have taken place during the last 20 months in some of these stopes and in one or two of the levels, they only necessitated the temporary cessation of operations, there being no loss of life from this cause during the above period.

This scheme has since been modified as follows:—No further stoping is to be carried out until permission is obtained from the 38th down to the 44th levels between Garland's and Glen Shafts. Below the 44th down to the 52nd levels, work is to be carried on as before—*i.e.*, a single stope above and below each succeeding level south of a line drawn on the section through this area.

Accident No. 146 of 1922 — Three men were killed and 2 seriously injured by a rockburst (displacement of both horizontal and vertical styles of Seismograph 1 m/m) which occurred in the hanging-wall of Taylor's Shaft, Nundydroog Mine, about 40 ft. above the 3,800 ft. level on the 30th October 1922.

A foot-wall chute was being constructed above this level and, in order that the skips could freely tip into the chute, it was necessary that two or three hanging-wall-plates should be moved back about 2 ft.

The lagging had been removed from between three sets and the lowest of the three wall-plates had also been removed and replaced by another further back in the hanging-wall when there was a rockburst. Below this, three sets were forcibly displaced and fell with all the lagging planks and many tons of rock upon the plat and a covering placed over the shaft.

There was a staging upon the set above the 3 that fell and this set was not damaged. Six men were working on the staging or on the set above and three of these were struck and killed by rock from the hanging-wall; two others were seriously injured.

The centre of the hanging-wall burst outwards from the set above the staging, on which the men were working, to the plat — a distance of 40 ft. — for about 3 ft., leaving ragged edges at the sides.

It was natural at first to think that some loose rock had fallen after removing a wall-plate and some lagging, but the ragged edges of the gully—40 ft. long — in the hanging-wall did not justify this conclusion, while the Seismograph recorded a rockburst at the same time.

It was certainly a coincidence that the rockburst should have occurred while the alterations were being made more than 3 years after this section of the shaft had been sunk and that nothing should have happened either then or during the interval.

This part of the shaft is over 1,000 ft. away from any areas at present being stoped.

Accident No. 31 of 1923 — On the 25th February 1923, 9 men (5 hand-jumper and 2 timber-coolies under 2 mestris) were working in a winze, 70 ft. deep, which was being sunk from the 4,000 ft. level. Kennedy's Shaft, Nundydroog Mine to meet a rise coming up from the level below (4,200).

The winze was 11 ft. long and 4′ 6″ wide, the hanging-wall being supported by boxes filled with waste rock. At each end of the winze was a ladder-way, the kibble travelling up and down over the north ladders.

The boxes were 4 ft. wide and, with the timbers supporting them, covered 6 ft. of the middle of the winze, leaving 2′ 6″ open at each end for the ladders. Beneath the bottom box, there were two more timbers in position for the top of the next box.

While 5 hand-jumper coolies were in the sink and the timber-mestri and 2 coolies, 20 to 30 ft. above, there was a very heavy rockburst — the displacement of the horizontal and vertical styles being 19 m/m and 22·2 m/m respectively — which completely wrecked the winze, brought down many tons of rock from the back of the level just S. of the winze and lesser amounts in a crosscut and drive N. for over 200 ft. When the blocked level had been cleared and the winze found to be completely filled to the top, it was at once realized the chances were very faint that anyone could be alive, but the work of clearing it was proceeded with and carried on as quickly as possible by gangs of men working shifts of four hours.

By the evening of the 26th, a depth of 12 ft. had been reached, but during the night some temporary supports were knocked out by a movement of the hanging-wall, so it was decided — as all 8 persons had by now perished — to go more slowly taking as few risks as possible.

The bodies of the 3 timber-men were recovered on the 6th and 8th March, one 40 ft. down and the others about 50 ft. on the broken ladder-way at the N. end.

The bodies of the 5 hand-jumper coolies were found near and at the bottom of the winze on the 10th and 11th March; all of them must have been killed instantaneously.

For the first 12 ft. or so, the foot-wall of the winze did not seem to be affected though the hanging-wall was shaken and very heavy. Below that point, the foot-wall was shattered and for its whole depth the winze was much wider than it had previously been.

Practically every piece of timber had been broken, some of them being turned up at the foot and down at the head, others being split.

Of the two timbers below the lowest box and within 6 ft. of the bottom, the N. one was broken and knocked out, letting down the hanging-wall for a thickness of 2 feet or more, but the S. piece remained in place and held up that part of the hanging-wall, so shattered that it looked as if the slightest touch would dislodge it.

The back of the crosscut (in the foot-wall of the drive close to the top of the winze) at its east end was badly shattered, but in most of the other parts of the level, where rock fell, it would appear as if it had been shaken down and had not received such a severe shock.

The 3,800 ft. and 4,200 ft. levels were not affected at all.

The work of clearing out the winze and recovering the bodies of those killed lasted for 12 days; it was exceedingly dangerous and unpleasant and great credit is due to all who took part in it. It is far removed from any other workings in a block of ground extending in all directions for several hundred feet without any stoping

There is a fault-plane in the locality in which metamorphism of the surrounding rock has taken place. Whether this change has caused the schists to become harder and more brittle is not certain, but it is obvious they are of the explosive or disruptive variety due to internal stresses and strains.

The zone in which this fault-plane occurs starts at the 3,200 ft. level and has given much trouble both in the levels and stoping area below.

In May 1920, a heavy rockburst occurred in the last 25 ft. of the 4,000 ft. level N. of Kennedy's Shaft, a short distance N. of this winze, killing 5 men who were working at or near the end. Some time after this, heavy sets were being put up to make the place safe when another rockburst occurred, again blocking the drive. It was then decided to put out a crosscut east (mentioned above) and drive past this bad zone of ground in the foot-wall. Since then no trouble had been experienced in this level until the above accident happened.

In consequence of these rockbursts, it has been decided to abandon the winze and rise and not to do any stoping in the vicinity of the fault-plane; the nearest stoping will be some hundreds of feet N. and S. of it.

Exactly 9 months after Glen Secondary Shaft had been wrecked and had to be re-timbered from 50 ft. above the 55th to the 57th levels, another rockburst on the 18th June 1923 (Accident No. 79 of 1923) wrecked and blocked the same shaft from 30 ft. above the 54th to the 55th levels, the 54th and 55th levels south from the shaft crosscuts for 100 feet or more and a machine stope between the 55th and 54th levels south of the shaft. The 53rd level south of the shaft was partially blocked for over 100 feet.

The shaft was also slightly damaged from the 51st to the 53rd levels and more seriously from the 53rd level to where the timbers had collapsed altogether.

Below this and at the 54th plat, the whole shaft equipment including the plat had completely disappeared leaving a big and dangerous looking cavern; much of the hanging-wall and also part of the crosscut to the lode from the plat went with this down the shaft, the lift below being filled with debris to the 55th plat where the brow-set had given away though the plat itself appeared to be all right; below this the shaft was not much affected.

North of the shaft little damage was done, but small amounts of loose were shaken down and several level timbers below the 54th level, with a considerable amount of hanging-wall, came away and fell into a stope filling it with waste rock to within 25 feet of the level.

The morning shift men were getting to their working places when the rockburst occurred and 9 men were entombed.

It was not known exactly where they were, but it was though that 2 machine men and a timber mestri were likely to be in the stope, or in the 54th level south on their way to the stope, while the other 6 men were probably at the 54th plat and were carried away down the shaft when the plat collapsed; it was also possible that all 9 would be found buried in the shaft.

For over 24 hours, one man could be heard talking some way down the shaft (apparently 30 to 40 feet), strenuous and courageous efforts being made to save him.

It was terribly slow and hazardous work however and was eventually stopped when it was no further use endangering the lives of those carrying out these opperations for the sake of corpses.

Work was then started to make the shaft safe from the 51st level downwards and the collapsed part will be timbered before the bodies can be recovered.

(*N. B.*—This has since been accomplished and all 9 bodies found, extricated and sent up between the 10th and 14th September.)

In the meanwhile, gangs of men working six hour shifts were trying to get at the stope (between the 55th and 54th level), through the blocked 55th level south. A small passage was made for 70 feet through the block to where there was a ladder-way up to the stope between a pigstye and the solid ground. This, when reached, was found to be full of quartz which had to be drawn off and passed back in baskets through the passage. When this had been cleared and a rope ladder put up, it was found that the stope (to the south of the pigstye) was filled with quartz almost up against the lode above. Sufficient quartz was removed to enable an opening to the 54th level at the south end of the stope to be reached, when it was found that the timbers above that level had given way and that the waste rock filling in the stope above had run.

Under these circumstances it was decided to stop this work until the 55th level had been cleared, timbered and made safe and a proper ladder-way, separated from the chute pass, put up to the stope.

The length of the shoot of ore close to Glen Shaft at these levels is not more than 300 feet.

To the north of this is a length of 200 feet of solid ground in which the lode will not be stoped (too poor) and, beyond that, a shorter shoot of ore which is being worked. To the south of the first shoot of ore mentioned there is no stoping at all.

The only excavation made in this area, since the rockburst on 18th September 1922, was in the stope between the 55th and 54th levels south of the shaft, which was blocked on this occasion. The removal of part of the lode, found only a few feet in the hanging-wall of the shaft, together with the presence of a big slide or cross-course which intersects the lode at the south end of this shoot of payable ore, probably caused the rockburst.

The slide, judging from the rockbursts that have occurred in its vicinity in this and the Mysore Mine, has set up stresses and strains in the surrounding rock, the effects of which were only experienced after stoping operations were commenced between the 50th and the 57th levels, Glen Shaft.

As it has been conclusively proved that ordinary timber sets cannot stand against such forces, the Superintendent of the Mine has decided to line the shaft with concrete, starting at a point 40 feet above the 58th level up to the 51st or even 50th level. Sections of Carmichael's Shaft in the northern end of the property will be dealt with in a similar manner.

The accident in the Mysore Mine from this cause (No. 15 of 1923) in which 2 persons were killed and 5 seriously injured is noticeable for two facts — the very extensive area affected in Tennant's Section of this Mine and the few fatalities that occured considering the large number of workmen spread over this area and the damage done to it. The levels south of Tennant's Shaft were shaken from the 15 down to the 21 and badly damaged (in parts) from the 22 to the 27, including the shaft crosscuts. The fatalities occurred in two stopes — one below the 22nd level and the other below the 24th — due to falling rock, but in this respect as in others the levels suffered more severely than the stopes; most of the latter are exceedingly well-supported by pack-walls and pigstyes.

### Falling in shafts, winzes, etc.

There were 10 fatalities in 10 accidents from falling away, 9 of which occurred in shafts and 1 in a main winze.

Six of these were due to the carelessness of the persons killed and 3 were unavoidable. The remaining one was due to the cage being hoisted while a man was in the act of entering it. The bellman, who gave the signal to hoist without first having ascertained from the top platform that all was right, would have been prosecuted had he not absconded.

In the previous year there were 13 deaths in 13 accidents from the same cause. So, although this class of accident appears to be on the decrease, yet the number should become less still if only ordinary care is exercised by the persons concerned.

### Explosives.

There were 8 accidents due to this cause accounting for 11 fatalities compared with 7 accidents and 12 fatalities in 1921-22. In three of these accidents, 2 persons were killed, two of which were the result of tampering with misfires while the third was due to drilling into an old hole containing portion of an unexploded charge. In one of the two former cases (Accident No. 1 of 1923), the mestri in charge lost his life while trying to remove cartridges of blasting gelatine from an "upper" in a stope worked by hammer drills, due to the charge exploding. The blaster, it is stated, had been unable to examine the stope after firing the last round of holes owing to the quartz cracking and splitting off from the working face. A cotterman was also killed and another seriously injured. The blaster had his certificate suspended for 3 months for a breach of Rules 122, 123 and 124 under the Mysore Mines Regulation.

In the other case, the blaster in the sink of Ribblesdale's No. 2 Auxiliary Shaft, Mysore Mine (Accident No. 70 of 1923) was tampering with a misfire by using an iron scraper to make room for a fresh primer, when the charge exploded killing him and his assistant and injuring another blaster. This was a reckless act on his part and contrary to the Mining Rules.

The third accident was due to drilling into a socket in the sink of a winze below the 44th level south, Kennedy's Shaft, Nundydroog Mine (No. 34 of 1923). As it was evident that the sink had not been properly cleared of broken rock after blasting to enable a thorough examination to be made and locate any existing sockets, the contractor was fined Rs. 50, two mestries had their certificates suspended for 2 months and a third his for one month.

Of the remaining 5 accidents under this head, 3 were the result of negligence on the part of those concerned, 1 was due to recklessness and the other unavoidable. Necessary action was taken against the persons responsible in the former case.

## IV.—Meteorology and Seismology on the Kolar Gold Field.

The following has been taken from the report for the year 1922 by Mr. J. S. Jones, Physicist, kindly furnished to this Department by Messrs. John Taylor and Sons' Commitee, Oorgaum.

*Seismometry.*—The seismographs have been kept in good order.

Indian Standard Time has been checked daily.

The number of local shocks recorded in 1922 was 13,227 being 602 less than the average of 13,829 for the 11 years, 1912-1922 inclusive.

The shocks have been classified according to months, days, hours and intensities.

*Monthly Classification.*—During the months January to May inclusive, July and August, the number of shocks was above the average by amounts varying from 281 (February) to 2 (August). These months between them accounted for 67% of the year's total of shocks.

In the first six months of the year, 56·5% of the shocks occurred as against a normal of 49%.

The last four months of the year showed a big decrease in the number of shocks — September, 130 below normal, October, 284 below normal, November, 495 below normal and December, 530 below normal. In these last two months, the activity was decreased to half its normal value. This abnormal decrease was no doubt due to the easing of the stresses caused by the large releases in August and September.

*Daily Classification.*—The average number of shocks per day was 36·2 against an average of 37·9 per day.

*Hourly Classification.*—Both the hourly distribution figures for 1922 and for the years 1912-22 show the same general features. Thus both show a maximum number of shocks for the hour 4 — 5 hours, and a minimum number of shocks for the hour 17 — 18 hours, with a fairly smooth transition from the one to the other. It is suggested that this is due to the "trigger effect"—*i. e.* the releases which follow on after blasting.

*Classification by Intensity.*—The number of small shocks recorded for 1922 was below normal, whereas the number of larger shocks (over 1 m/m) was above normal. Thus there were 59 shocks with a throw of more than 3 m/m as against a normal of 39. These two effects were particularly noticeable during the last few months of the year.

*Yearly Classification.*—The following table shows the shocks recorded for the years 1912–22 inclusive:—

| Year | Over 3 m/m | Total |
|---|---|---|
| 1912 | 16 | 12,628 |
| 13 | 22 | 13,588 |
| 14 | 14 | 17,486 |
| 15 | 27 | 15,239 |
| 16 | 45 | 15,518 |
| 17 | 19 | 10,586 |
| 18 | 24 | 18,127 |
| 19 | 40 | 10,809 |
| 20 | 69 | 12,299 |
| 21 | 89 | 12,613 |
| 22 | 59 | 13,227 |
| Means | = 38·6 | 13,829 |

It will be noticed that on the whole the total number of shocks recorded per year seems to be decreasing, whereas the number of heavy shocks seems to be increasing.

*Earthquakes.*—During the year, 49 earthquakes have been recorded, of which 20 have been classified as "thickening of the line" and 1 as very great.

The Chilean earthquake of 11th November gave a good record. The disturbance commenced at 10 hours 22. 3 minutes I. S. T. (or 4 hours 52·3 minutes G. M. T.). The commencement of the S. phase was not distinguishable, but the L. phase showed very well the "beats" effect of two wave trains both having periods of nearly 20 seconds.

The other two earthquakes of any size were recorded on the 6th and 17th December. That on the 6th showed a maximum displacement of 33 m/m, but so far has not been located. The disturbance commenced at 19 hours 30 minutes I. S. T. (12 hours 0 min. G. M. T.).

*Bullen's 44th Level Seismoscopes.*—The Seismoscopes at the 44th level, Bullen's Shaft, have been read weekly. But owing to the approach of stoping areas, it has been arranged that they should be moved down to the 60th level.

The interpretation of these readings is very difficult owing to the uncertainty of the settlement of the foundation, the disurbances due to rockbursts, the movement of the floors of the chambers, etc.

The 1921 variations are supposed to be due to foundation settlement.

The following periods appear to be fairly clear from disturbance:—

| | | West Instrument | East Instrument |
|---|---|---|---|
| (1) | 2—1—'22 — 31—5—'22. | Moved 14' 5" to W. | Moved 3" to E. |
| | *Rockbursts caused big disturbances on 1st and 9th of June.* | | |
| (2) | 12—6—'22 — 1—7—'22. | Moved 117" to W. | Moved 5" to E. |
| | *Rockburst on* 3—7—'22. | | |
| (3) | 4—7—'22 — 2—1—'23. | Moved 368" to W. | Moved 2" to E. |

*(N. B. " = Seconds of arc).*

These results show that there is very little motion on the East instrument apart from the sudden jumps due to rockbursts. This indicates, as might be expected, the more or less fixed condition of the foot-wall.

The West instrument shows a continuance of the turning movement to the west.

This movement is either due to the tilting of the floor due to the compressional stresses on the small pillar of rock left between the hanging and foot-walls in that region, or else due to the hanging-wall closing in on the foot-wall at a greater rate below the instrument than above it.

The Seismomicrophone has not been used owing to trouble with power cables. This has now been greatly reduced and more results should be available this coming year.

## V. Prosecutions.

### (*a*) IN CONNECTION WITH THEFTS, ETC., OF MINING MATERIALS.

The following statement shows the number of cases dealt with during the year 1922, as compared with 1921, by the Senior Assistant Commissioner and First Class Magistrate, Kolar Gold Field, in connection with theft and illegal possession of mining materials under Section 6 of the Mysore Mines Regulation:—

| Year | Number of cases | Number of persons put up | Number of persons convicted | Value of property recovered | | |
|---|---|---|---|---|---|---|
| | | | | Rs. | a. | p. |
| 1922 ... ... | 99 | 140 | 102 | 3,548 | 5 | 6 |
| 1921 ... ... | 111 | 177 | 144 | 3,231 | 0 | 10 |

The following table shows the various kinds of mining materials in respect of which prosecutions were instituted during the year 1922:—

| Kind of Material | Number of offences dealt with | Number of persons charged in each case | Number of convictions | Value of property recovered | | |
|---|---|---|---|---|---|---|
| | | | | Rs. | a. | p. |
| Gold quartz ... ... | 51 | 71 | 56 | 1,102 | 1 | 0 |
| Auriferous tailings ... ... | 11 | 24 | 15 | 147 | 5 | 0 |
| Mercury ... ... | ... | ... | ... | ... | | |
| Amalgam ... ... | 2 | 2 | 2 | 36 | 3 | 0 |
| Native Gold ... ... | ... | ... | ... | ... | | |
| Sponge Gold ... ... | 9 | 12 | 7 | 1,989 | 1 | 0 |
| Bar Gold ... ... | ... | ... | ... | ... | | |
| Explosives ... ... | 2 | 2 | 1 | 19 | 8 | 0 |
| Explosives* ... ... | ... | ... | ... | ... | | |
| Tools ... ... | 21 | 25 | 19 | 237 | 0 | 0 |
| Wood ... ... | 2 | 3 | 1 | 16 | 15 | 6 |
| Candles ... ... | 1 | 1 | 1 | 0 | 4 | 0 |
| Total ... | 99 | 140 | 102 | 3,548 | 5 | 6 |

* Explosives found by the Police and confiscated in Court, but for which no person was chargeable.

### (*b*) IN CONNECTION WITH BREACH OF RULES, ACCIDENTS, ETC.

The following is a comparative statement for the three years 1922, 1921 and 1920:—

| | 1922 | 1921 | 1920 |
|---|---|---|---|
| Number of cases ... ... ... | 14 | 26 | 12 |
| Number of persons put up ... ... ... | 15 | 47 | 15 |
| Number of persons convicted ... ... ... | 12 | 32 | 6 |
| Number of persons acquitted ... ... ... | 1 | 14 | 6 |
| Number of persons discharged ... ... ... | 2 | ... | 1 |
| Number of persons not found ... ... ... | ... | 1 | 2 |
| Number of cases pending .. ... ... | ... | ... | ... |

Of the above, 7 cases were put up under the Indian Penal Code and 7 under the Mysore Mines Regulation. The penalties in the case of convictions ranged from fines of Rs. 5 to Rs. 50 and imprisonment from 3 days to 3 months.

During the year, one person was prosecuted and convicted for a breach of the Mines Regulation and Rules framed thereunder resulting in an accident.

Less serious offences committed in connection with 13 accidents entailed the departmental punishment of 18 persons by fines, or by the cancellation or suspension of their certificates.

Similarly, 9 other persons in 9 cases reported were dealt with departmentally for offences committed in connection with the provisions of the rules not resulting in accidents.

### E.—Explosives Section.

Following on the abolition of the Explosives Branch, to which reference has already been made in this and the previous year's report, Government in their Order No. I. C. 7686-95—Geol. 106-22-3, dated 16th June 1923, are now pleased to direct that the submission of a separate annual report on the working of explosives as hitherto be discontinued and that, in future, a report of the work done in this connection both by the Department of Mines and the District Magistrates, Magistracy and the Police should be consolidated and embodied in the report of the Chief Inspector of Mines in Mysore.

The details given below are for the year ending 31st December 1922.

*Number of licenses issued.*—During the year under report, the number of licenses in Form J. under articles 12 and 13, Schedule I of the Mysore Explosives Rules, granted by Government for the possession of specified explosives (other than fulminates) in and sale from a magazine, was 8, the same as in 1921. This by no means represents the actual number of magazines inspected and passed for use, as in practically every case more than one magazine exists on each mining block and these are included in a single license. Under the Mining Rules, they are known as "daily supply" magazines.

Altogether, 426 licenses under the remaining articles of Schedule I were issued by the various District Magistrates in Forms A, B, C, D, E and F for the manufacture, possession and sale of explosives as against 380 during the previous year, an increase of 46 licenses.

The total number of licenses granted for the twelve months, throughout the State, was therefore 434 as compared with 388 issued during 1921, the increase being the same as noted above, *viz.*, 46.

The following statement shows the distribution of the licenses under the different forms among the several Districts for the year 1922.

| District. | Forms. | | | | | | | | Total for 1922. | Total for 1921. |
|---|---|---|---|---|---|---|---|---|---|---|
| | A | B | C | D | E | F | J | K | | |
| 1. Bangalore ... ... ... | 6 | 81 | ... | ... | 78 | ... | 1 | ... | 166 | 136 |
| 2. Kolar ... ... ... | 6 | 20 | ... | ... | ... | ... | 6 | ... | 32 | 32 |
| 3. Tumkur ... ... ... | 7 | 14 | ... | ... | 5 | ... | ... | ... | 26 | 15 |
| 4. Mysore ... ... ... | 3 | 17 | ... | ... | 2 | 1 | 1 | ... | 24 | 33 |
| 5. Hassan ... ... ... | 5 | 10 | ... | 15 | 8 | 4 | ... | ... | 42 | 40 |
| 6. Shimoga ... ... ... | 28 | 38 | ... | ... | ... | ... | ... | ... | 66 | 60 |
| 7. Kadur ... ... ... | 13 | 29 | 2 | ... | 3 | ... | ... | ... | 47 | 42 |
| 8. Chitaldrug ... ... ... | 8 | 12 | ... | 1 | 9 | 1 | ... | ... | 31 | 30 |
| Total ... | 76 | 221 | 2 | 16 | 105 | 6 | 8 | ... | 434 | 388 |

With the exception of Mysore, all the Districts show an increase, that recorded in Bangalore being the most pronounced due to the gradual restoration of normal conditions and the impetus given to trade thereby.

*Observations on the issue of licenses by District Magistrates.*—Many cases have come to light of the issue of licenses by District Magistrates on wrong forms and of either charging excessive or insufficient amounts in fees. All such errors have been promptly pointed out and correct forms indicated.

It has also been occasionally observed that renewals of licenses are made by endorsing the same forms year after year, instead of issuing a fresh license on a new form yearly. Such a proceeding is incorrect as no provision is made in explosives license forms for endorsing annual renewals. Besides, this practice has resulted in such renewals not being reported to this Department in the monthly and annual returns along with other explosive licenses issued in the District.

*Departmental Inspection of Magazines and Premises.*—All the main and subsidiary magazines included in the licenses granted by Government for the possession of specified explosives in bulk, both on the Kolar Gold Field and elsewhere, and all the shaft-head daily supply magazines coming under Rule 94, Mysore Mining Rules, have been inspected in detail by the officers of this Department.

It is satisfactory to note that in no case was the sanctioned limit of explosives (stock) exceeded and that the conditions of the license were closely adhered to. Also the upkeep and supervision of the magazines are well-attended to; such of the minor defects as were noticed and pointed out during inspection were promptly remedied.

At the same time, the lightning protectors installed on these buildings were tested by means of a magneto; the tests proved satisfactory in every case.

### *Condition of Magazines and Licensed Premises — Nobel's Magazines, Kolar Gold Field.*

These magazines, three in number, are maintained in excellent order and condition internally and externally, showing that they are well and efficiently looked-after; much credit is due to the authorities in charge. No record having been kept of the results of tests of lightning conductors in two of the magazines, this was brought to the notice of the Agent who had the necessary charts prepared and put up. The approach-road to the magazines, which gets very badly cut up during the rains making transport in either direction difficult, especially for carts, will — so the Agent assures me—shortly be put in order and properly metalled.

*Messrs. Best & Co.'s Magazines near Bangalore City.*—These magazines are also kept in very good order and the Agent in charge is to be complimented on his excellent supervision. The cart- track leading to the magazines from the main road is in need of urgent repairs, which should be attended to at once as it might easily prove a source of danger during transport operations.

*Main Magazine, Mysore Mine, Kolar Gold Field.*—In first-rate order and well looked after. The sides of the excavation in which the buildings are situated require attending to in one or two places; this has since been done.

The passage at the south end of the larger building is too narrow for carts to pass without damaging or breaking some of the bird-cage system of wires forming part of the lightning conductor. These wires might, with advantage, be taken back and put flush with the southern wall of the building, passed under the pavement and joined up to the main circuit below ground. Superintendent notified.

*Edgar's Shaft Sub-Magazine, Mysore Mine.*—Some empty gelatine boxes were stacked outside the magazine near the main entrance. Instructions were given to have these removed altogether, as, in case of fire, they would become a source of danger.

Permission has been given to stock 500 lbs. of explosives at a time in this magazine.

*Main Magazine, Champion Reef Mine.*—The surroundings of this building require attending to and it was suggested that some sifted black-rock (metal) should be laid over the tailings sand forming the road leading to the magazine; otherwise, it is likely to get cut up and very heavy during the wet weather for transport purposes. The drains should be periodically cleaned of sands, which run down and collect in them from the dump surrounding the building on three sides.

The stacking of the cases of explosives on low wooden stools, in accordance with the rules, was advised.

*Gifford Shaft Sub-Magazine, Champion Reef Mine.*—Attention was drawn to the fact that in places the walls of the building itself and the passage exit are badly cracked—the result of rockbursts. These cracks to be filled and plastered over before they become any worse.

The "Cheesa" fuse-lighters stocked in the magazine for some years past should be destroyed or disposed of.

*Main Magazine, Ooregum Mine.*—The walls of the detonator magazine are somewhat badly cracked in places due to rockbursts; repairs to same have been put in hand and completed. A copy of the rules for the storage of explosives and the license for the current year should be posted in the lobby of the main building.

*Circular Shaft Sub-Magazine, Ooregum Mine.*—The walls of both rooms are badly cracked and require attention (since been attended to). A box of Nobel's safety electric fuse, which has been in stock for some years, should be made use of without further delay or destroyed, as otherwise it is likely to deteriorate.

*Bullen's Shaft Sub-Magazine, Ooregum Mine.*—This building has also suffered from the effects of rockbursts, the walls being cracked and some of the roof tiles displaced. The ventilators require attention and should be periodically cleaned. Some of the locker doors were broken and others missing. The surroundings, generally, might be cleaner and the rubbish between the ramp and the building removed.

The sides of the earthen ramp could, with advantage, be given a steeper slope and the top raised six inches or so, the upper portion of the roof of the building being now visible from the main road.

*Main and Sub-Magazines, Nundydroog Mine.*—A few trivial defects were noticed and pointed out; the buildings and surroundings are kept clean and in good order.

*Main Magazine, Balaghat Mine.*—Several boxes of gelatine were lying on the Cuddapah slab floor of the main room. They should invariably be stacked on low wooden benches, solidly constructed, in accordance with standing instructions, issued by this Department. Otherwise this and the sub-magazine were found to be in good order and well-looked after.

Except for these small and easily remediable defects, the attention paid to the magazines is good and the supervision competent.

*Condition of Explosives.*—No complaints have been received during the year by this Department from the consumers of the inefficient physical condition or inferior quality of the explosives imported.

*Inspections by the Magistracy and the Police.*—The total number of inspections of explosives premises carried out during the year by the Magisterial and Police Officers empowered to conduct them under Rule 125, Mysore Explosives Rules, was 463 as compared with 484 made during 1921, a decrease of 21 inspections.

The proportion of inspections carried out compared with the number of licenses issued — which appear to be steadily on the increase — is again small and an unsatisfactory feature of the year's work. A great improvement is necessary in this direction to keep pace with the increase. The entire exclusion of all licenses issued in Form E (to possess gunpowder or other explosives required *bona fide* for blasting purposes) throughout the State from inspection and the omission to inspect many of the premises licensed for possession and sale of imported articles of firework composition during festive occasions in town limits (Form B) and others licensed to deal in fireworks in villages or other rural areas, account for the low proportion noticed.

During the year, only 128 premises in all, or 29·49 per cent of the total number licensed (434), have been inspected by the District authorities, as against 34·5 per cent in 1921; the figures speak for themselves. Leaving out the eight licenses granted by Government, these premises being subjected to personal inspection by the Inspectors of Mines, the percentage of premises visited by the District authorities works out to 30·05 only.

The following statement gives the number of licenses issued in the several Districts during the year and the percentage of premises inspected in each of them during 1922 and the two previous years:—

| District | Number of licenses issued during | | | Percentage of premises inspected during | | | Remarks |
|---|---|---|---|---|---|---|---|
| | 1922 | 1921 | 1920 | 1922 | 1921 | 1920 | |
| Bangalore ... | 166 | 136 | 66 | 11·51 | 18·38 | 35·38 | 1 granted by Govt. |
| Kolar ... | 32 | 32 | 26 | 65·38 | 40·63 | 15·00 | 6 do. |
| Tumkur ... | 26 | 15 | 13 | 30·77 | 60·00 | 92·30 | |
| Mysore ... | 24 | 33 | 16 | 30·43 | 18·18 | 37·50 | 1 granted by Govt. |
| Hassan ... | 42 | 40 | 35 | 21·43 | 52·50 | 45·71 | |
| Shimoga ... | 66 | 60 | 59 | 46·97 | 53·33 | 40·68 | |
| Kadur ... | 47 | 42 | 39 | 44·68 | 47·62 | 56·41 | |
| Chitaldrug .. | 31 | 30 | 22 | 51·61 | 26·67 | 31·82 | |
| Total ... | 434 | 388 | 276 | *30·05 | *35·26 | *42·00 | |

*These percentages are obtained after excluding the magazine licenses brought under the direct inspection of the Chief Inspector of Mines in Mysore.

Only two Districts — Kolar and Chitaldrug — record more than 50 per cent of inspections of licensed premises during the year under report, showing that the work in this connection has materially suffered throughout the State; the steady decline noticeable from the above statement should be checked and the inspection work carried out on more systematic lines to become in any way effective.

*Theft of Explosives.*—During the year under report, no theft of explosives, either from magazines or licensed premises, was brought to the notice of this Department. On the Kolar Gold Field, a person found in possession of 9 gelatine and dynamite cartridges, which he could not properly account for, was put up before the Special Magistrate under Sections 6 and 13, Mysore Mines Regulation, who, after recording the evidence, discharged the accused under Section 253, Cr. P. C., and ordered the cartridges to be handed over to the owner, the Champion Reef Gold Mines of India, Ltd. In another case, one person found in possession of 50 gelatine cartridges, 4 coils of fuse and 35 detonators, was similarly charged before the Special Magistrate, convicted and sentenced to pay a fine of Rs. 50 or, in default, to undergo 2 months' rigorous imprisonment. The explosives were treated as "mining material" and returned to the Common Nominee of the Mining Companies.

### *Prosecutions for unlicensed manufacture of, and dealing in, Explosives.*

In the Kolar District, 2 persons, prosecuted for unlicensed dealing in explosives under Rule 126, Mysore Explosives Rules, were convicted and sentenced to pay a fine of Rs. 10 each and one of them to suffer 10 days' rigorous imprisonment in default of payment of fine.

In the Tumkur District, two others were charged under Sections 5 and 7 of the Mysore Explosives Regulation for the same offence and were each convicted and sentenced to pay a fine of Rs. 51.

There were two cases of prosecution in the Mysore District for unlicensed manufacture and use of explosives under Rules 20, 23 and 126, Mysore Explosives Rules, and Section 7 of the Regulation, respectively; one of the accused in the first case was convicted and sentenced to pay a fine of Rs. 25 while the other absconded. The second case is pending disposal with the City Magistrate, Mysore. These two cases of breach of the law came to light through accidents.

One case of prosecution for a breach of Rule 12, Mysore Explosives Rules, (possessing fireworks in excess of the licensed quantity) occurred in the Chitaldrug District and the accused person was convicted and sentenced to pay a fine of Rs. 20.

*Accidents.*—During the year, 15 accidents were reported from various parts of the State, other than the Kolar Gold Field, where 13 additional accidents occurred in connection with the mining operations carried on there.

Thus the total number of accidents by explosives for the year throughout the State amounted to 28, involving the death of 16 persons and serious injuries to 28 others as compared with 33 accidents, 30 fatalities and 52 persons seriously injured during 1921.

*Prosecutions in connection with accidents.*—For having manufactured and used an explosive in connection with a blasting accident in the Mysore District, two persons were prosecuted under Sections 20 and 23 of the Mysore Explosives Rules. One of them was convicted and sentenced to pay a fine of Rs. 25 while the other absconded.

In connection with another accident which occurred while explosives were being manufactured without a license, a Mahomedan is being prosecuted for causing the death of two persons; the case is proceeding before the City Magistrate, Mysore.

The blaster concerned in a misfire accident (Kolar Gold Field) was convicted and fined Rs. 10 or, in default, sentenced to undergo simple imprisonment for 15 days for not having examined the place properly after the blast and for not reporting the existence of the misfire to the persons concerned.

*Departmental action in connection with accidents.*—In four of the accidents on the Kolar Gold Field, departmental action was taken.

The certificate of an absconding blaster, concerned in a misfire accident, was cancelled pending prosecution if caught. In three other cases, the certificates of the persons responsible were suspended for periods ranging from 1 to 3 months for a breach of the Mysore Mining Rules and in certain other cases fines were imposed on the persons concerned.

No action was considered necessary in the remainder, as the injuries sustained by the persons responsible either did not warrant any further proceedings or the accidents were classed as unavoidable.

*Explosives confiscated to Government or kept in custody.* No explosives have been confiscated to Government during the year, the Special Magistrate, Kolar Gold Field, having ordered in the cases of theft, etc., placed before him, that such explosives should be treated as mining material and returned to the Common Nominee of the Mining Companies.

The quantity of explosives in stock in the Government Magazine at Robertsonpet is 26 gelatine cartridges, 1,495 detonators and 8 feet of fuse.

### COMPARATIVE STATEMENT SHOWING THE QUANTITY OF EXPLOSIVES IMPORTED INTO THE STATE DURING 1921 AND 1922.

| Description | | 1922 | 1921 | Increase | Decrease |
|---|---|---|---|---|---|
| Gunpowder | lbs. ... | 16,711½ | 14,376 | 2,335½ | ... |
| Percussion caps | No. ... | 1,340,025 | 1,340,180 | ... | 155 |
| Dynamite | lbs. ... | 143,082 | 268,200 | ... | 125,118 |
| Blasting Gelatine | ,, ... | 356,000 | 339,300 | 16,700 | ... |
| Gelignite | ,, ... | ... | 8,250 | ... | 8,250 |
| Safety Fuse | coils ... | 194,890 | 209,150 | ... | 14,260 |
| Detonators | No. ... | 939,315 | 1,212,000 | ... | 272,685 |
| Loaded Rifle Cartridges | ,, ... | 24,640 | 28,934 | ... | 4,294 |
| ,, Gun ,, | ,, .. | 35,735 | 46,975 | .. | 11,240 |
| ,, Revolver ,, | ,, ... | 4,471 | 3,125 | 1,346 | ... |
| ,, Pistol ,, | ,, ... | 330 | 1,000 | ... | 670 |
| Empty Gun ,, | ,, ... | 8,525 | 6,850 | 1,675 | ... |
| S. A. Blank ,, | ,, ... | 5,420 | 10,790 | ... | 5,370 |
| Sulphur | lbs. ... | 38,185 | 25,415 | 12,770 | ... |
| Slugs | No. ... | ... | 4,000 | ... | 4,000 |
| Wads | ,, ... | 1 box | ... | 1 box | ... |

## Accidents by the use of explosives brought to the notice of the Mines and Explosives Department from 1st January to 31st December 1922.

| No. | Date of accident | Nature of explosive | Where accident occurred | Circumstances of accident | Number of persons | |
|---|---|---|---|---|---|---|
| | | | | | Killed | Injured |
| 1 | 17th Feb. ... | Gunpowder ... | Jaraganahalli, Bangalore Taluk. | Two persons were engaged in the removal of boulders in their garden by blasting. An explosion occurred whilst they were ramming home the charge into one of the holes with a crow-bar, severely injuring both ... | ... | 2 |
| 2 | 1st Mar. ... | Gunpowder ... | 11th mile, B. A. T. Section cutting of the tram line from Bhadravati. | Two persons, who were engaged in blasting work, received injuries in consequence of a hole containing gunpowder exploding while it was being loaded by force with an iron rod ... | ... | 2 |
| 3 | 10th Mar. ... | Dynamite ... | North bank, Krishnarajasagara Works. | Two persons, who went to work as usual, began to drill holes for blasting and, while doing this, the jumper appears to have intersected a socket containing portion of an unexploded charge of dynamite. There was an explosion and both were severely hurt. | ... | 2 |
| 4 | 10th April ... | Gunpowder ... | Chiknayakanahlli, Tumkur District. | A mahomedan was engaged in deepening a well by blasting. As the result of an explosion of the gunpowder with which he was dealing at the bottom of the well, he succumbed. Three others, who got down into the well one after another to try and rescue the blaster, also met with the same fate, due to suffocation by poisonous gases and fumes ... | 4 | ... |
| 5 | 15th April ... | Gunpowder ... | Hunsanpur village, Gundlupet Taluk. | Two persons, who were engaged to deepen a well, began to drill a new hole in close proximity to another which they knew had missed fire in the preceding round. In consequence, the latter hole exploded, seriously injuring both. One of them succumbed to his injuries after a few days ... ... | 1 | 1 |
| 6 | 3rd June ... | Gunpowder ... | North bank, Krishnarajasagara Works. | While blasting operations were being carried on, a stone—the size of a cocoanut—struck a woman who happened to pass across the danger zone in spite of warnings given her to keep away. | ... | 1 |
| 7 | 10th June ... | Fireworks composition | Chowlakatte, Chiknayakanhalli Taluk. | A man was pounding a mixture of saltpetre and sulphide of arsenic in a cocoanut shell, when the mixture exploded burning the fingers of his left hand and causing slight injuries to two other persons seated by his side ... | ... | 3 |
| 8 | 19th June ... | Detonator ... | Janakal village, Nelamangala Taluk. | A boy picked up a detonator, which was left behind near a well by a contractor, and cut it open to ascertain its contents, when it exploded and blew off four of the fingers of his right hand ... | ... | 1 |
| 9 | 7th July ... | Gunpowder ... | Ganjam, Seringapatam Taluk. | While a woman and a boy were manufacturing gunpowder in a mahomedan's house against the conditions of the license granted to him, it exploded while being pounded, causing the death of both the woman and the boy ... | 2 | ... |
| | | | | Carried over ... | 7 | 12 |

DEPARTMENT OF MINES & EXPLOSIVES.

OFFICE OF THE CHIEF INSPECTOR OF MINES IN MYSORE.

No. 1461 *Oorgaum*...28 – 3 –...*192* 4

MEMO.

The undersigned has the honour to forward herewith a copy of the publication noted below and to request the return of this card duly signed and stamped in acknowledgment of the receipt thereof.

R. BOCQUET,  
*Chief Inspector of Mines*  
*in Mysore.*

---

**(Report of the Chief Inspector of Mines in Mysore for 192** 2)– 23.

Received.................................192 . Signature..................

Designation............

## Post Card.

STAMP

To

THE CHIEF INSPECTOR OF MINES IN MYSORE.

OORGAUM, K. G. F.
(Mysore State, S. India)

Accidents by the use of explosives brought to the notice of the Mines and Explosives Department from 1st January to 31st December 1922—(*concld*).

| No. | Date of accident | Nature of explosive | Where accident occurred | Circumstances of accident | Number of persons | |
|---|---|---|---|---|---|---|
| | | | | | Killed | Injured |
| | | | | Brought forward ... | 7 | 12 |
| 10 | 31st July ... | Dynamite ... | Maddagiri. | While two persons were ramming home with force a charge of dynamite into a hole, it exploded injuring both ... | ... | 2 |
| 11 | 20th Aug. ... | Firework composition | Kanathur village, Turuvekere Taluk. | While mixing together some quantities of saltpetre and sulphide of arsenic—the mixture being used for preparing crackers—a man used some force and caused the mixture to explode injuring both his hands and face ... | ... | 1 |
| 12 | 13th Sep. ... | Gunpowder ... | Chikkachellur village, Challakere Taluk. | A man, who was blasting in a well, attempted to take out the explosives from a misfired hole with a crow-bar, when it exploded causing severe injuries to which he subsequently succumbed ... | 1 | ... |
| 13 | 14th Sep. ... | Firework composition | Sorkapet, Kolar Gold Field. | A mahomedan was mixing the ingredients of an explosive composition to be used in making articles of fireworks, and, while so doing, the mixture exploded causing instantaneous death to the man and slight injuries to his daughter who was near by at the time ... | 1 | 1 |
| 14 | 31st Oct. ... | Explosive composition | Bhattavarapalli, a hamlet attached to Manchinellakote, Srinivaspur Taluk. | While a man was hitting some explosive substance on a stone with a hammer, it exploded injuring him and two others alongside—one of the latter only trivially... | ... | 2 |
| 15 | 9th Dec. ... | Detonator ... | Bangalore City. | A boy received injuries to his little finger as the result of tampering with a detonator ... | ... | 1 |
| | | | | Total ... | 9 | 19 |

*N.B.*—The explosives accidents in the Mining Area, Kolar Gold Field, have been embodied in the record of fatal and serious accidents (Mining and Non-Mining), *vide* Tables 13 and 13 A.

## F.—A BRIEF REPORT ON THE WORKING OF THE KOLAR GOLD FIELD POLICE FOR THE OFFICIAL YEAR 1922-23.

(By. Mr. S. M. Pritchard, J.P., Special Superintendent of Police.)

*General.*—I was in charge of this Circle throughout the official year.

*Strength of the Force.*—The sub-joined statement shows the strength of the Force in this Circle.

| No. | Grades. | 1921-22. | 1922-23. |
|---|---|---|---|
| 1 | Inspectors ... ... ... ... | 10 | 6 |
| 2 | Sub-Inspectors ... ... ... ... | 14 | 14 |
| 3 | Sergeants ... ... ... ... | 21 | 21 |
| 4 | Duffedars ... ... ... ... | 4 | 4 |
| 5 | Constables ... ... ... ... | 323 | 323 |
| 6 | Recruits ... ... ... ... | 10 | 10 |
| 7 | Head Clerk ... ... ... ... | 1 | 1 |
| | Total ... | 383 | 379 |

A need for the augmentation of the Police Force on the Kolar Gold Field proper was felt and the Mining Board also pressed for it, but, in consideration of the financial stringency, a very modest proposal, involving a slight increase of cost, was submitted, which necessitated the absorption of all the 5 Station Inspectors and 6 Office Recruits; the proposal is now before Government. In anticipation of Government sanction, 4 Inspectors have been already absorbed.

*Cost of the Force.*—The total cost of the Force during the year was Rs. 1,07,640-5-7 as against Rs. 1,16,034-14-5 in the preceding year. The decrease of Rs. 8,394-8-10 was due to the absorption of 4 Station Inspectors and the non-enlistment of 4 Office Recruits, coupled with the retrenchment of the local allowance of the Officers drawing a salary of Rs. 50 and above per mensem and to a moiety of the local allowance granted to the Special Superintendent of Police.

*Beats, Patrols and co-operation of the Police with the Watch Establishment.*

The introduction of special patrols continued to work satisfactorily. The beats were, as usual, systematically carried out. More attention was paid to the prevention of crime by surveillance of professional gangs and the successful prosecution of a gang case under Section 401, I.P.C. (the only case put up under this section up-to-date in the Mysore State).

The Kolar Gold Field Watch Establishment, as usual, heartily co-operated in the prevention and detection of crime and the Police are very grateful to this body for the help given in the careful, quiet and peaceful administration of and on the Field proper.

*Reported Crime.*—The total number of cognizable cases reported to the Police of this Circle during the year under review was 477 as against 584 in the preceding year and 519 in the year 1920-21.

There has been a perceptible decrease of 107 cases during the year under report over that of the previous year, generally and particularly under the heads of house-breaking and thefts and thefts ordinary.

Out of 477 cognizable cases reported, 420 were true cases as compared with 535 for the preceding year. The number of convictions to true cases together with the number of persons convicted was 188 and 242 as against 237 and 297, respectively, in the previous year.

The accompanying statement shows the figures relating to grave crime reported during the year on the Kolar Gold Field proper and the result of the action taken.

Under the Mysore Mines Regulation, 45 cases were reported during the year as against 48 in the previous year. Including 8 cases involving 9 persons pending at the end of the previous year, 50 cases involving 57 persons were prosecuted as against 65 cases and 72 persons in the previous year; 38 cases concerning 38 persons ended in conviction, 7 cases against 14 persons in acquittal; the prosecution of 3 persons in 3 cases was withdrawn because the value of the property was found to be very low and 2 cases involving 2 persons were pending trial at the close of the year.

In 21 cases of theft, etc., of mining material, property worth Rs. 1,677-10-0 was recovered as against 31 cases during the previous year in which property worth Rs. 1,334-7-0 had been recovered.

On the Kolar Gold Field proper, one case under attempt at murder against "nil" in the previous year was reported and the same ended in conviction.

One case under culpable homicide, against one in the preceding year, was reported and ended in conviction.

Out of 2 cases reported under robbery, against 6 last year, 1 was pending trial and the other was pending investigation at the close of the year.

There were 78 true cases of house-breaking and thefts, the lowest number ever reported on the Kolar Gold Field, 4 of these being heinous cases, as against 138 of which 6 were heinous in the preceding year; 6 convictions were secured in 17 cases and 3 cases were withdrawn.

In all, 139 true cases of theft were reported as against 191 in the previous year. Of these, 75 ended in conviction, 14 in acquittal, 2 were pending trial and 48 pending investigation with the Police at the close of the year.

*Recovery of Stolen Property.*—In 240 true cases reported on the Kolar Gold Field area, property to the value of Rs. 9,912-13-6 was reported to have been lost and, in 135 of these cases, recoveries to the value of Rs. 6,007-6-0 have been made giving a percentage of 60·6.

*C. I. D. Police.*—In the Detective Department, expenditure for the year 1922-23 was Rs. 17,069-6-0 as against Rs. 16,987-4-0 in the previous year.

Altogether 14 cases as against 46 were detected by the C. I. D. Police during the year. Of these, 6 ended in conviction, 5 in acquittal, 1 was withdrawn, 1 was disposed of on "B" form and the remaining 1 was pending investigation at the close of the year. The value of property recovered in these cases was Rs. 1,638-6-0 as against Rs. 1,046-10-0 in the preceding year. The Department has been instructed not to take up miscellaneous petty cases, as was done last year, as this detracts from the time spent on their legitimate work, *viz.*, prevention and detection of gold thefts and watching receivers and their servants.

*Grave Crimes on the Kolar Gold Field proper—A. & B. Divisions, Champion Reef and Oorgaum—for the year 1922-23.*

| Serial No. | Section of law | Cases | | | | | Persons | | | Property | | Percentage of recovery of property |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Reported | Disposed of on B. Form or refused | Total true cases | Convicted | Percentage of convictions to true cases | Arrested | Convicted | Percentage of convictions to arrests | Lost | Recovered | |
| | | | | | | | | | | Rs. a. p. | Rs. a. p. | |
| 1 | Murder ... | .... | ... | ... | ... | ... | ... | ... | ... | ...... | ...... | ... |
| 2 | Culpable Homicide ... | 1 | ... | 1 | 1 | ... | 1 | 1 | ... | ...... | ...... | .. |
| 3 | Dacoity ... | ... | ... | ... | ... | ... | ... | ... | ... | ...... | ...... | ... |
| 4 | Robbery ... | 2 | ... | 2 | ... | ... | 3 | ... | ... | 99 14 0 | 5 8 0 | ... |
| 5 | House Breaking and Theft. ... | 87 | 9 | 78 | 17 | ... | 49 | 31 | ... | 4,619 10 0 | 2,432 12 0 | ... |
| 6 | Theft ... | 151 | 12 | 139 | 75 | ... | 133 | 96 | ... | 3,343 14 6 | 1,719 11 6 | ... |
| 7 | Receiving Stolen Property. ... | 3 | 1 | 2 | ... | ... | 2 | ... | ... | 187 3 0 | 187 3 0 | .. |
| | Mysore Mines Regulation. ... | 45 | 5 | 40 | 30 | ... | 41 | 30 | ... | 1,662 4 0 | 1,662 4 0 | ... |
| 9 | Criminal Sections of C. P. C. ... | ... | ... | ... | ... | ... | ... | ... | ... | ...... | ...... | ... |
| | Total ... | 289 | 27 | 262 | 123 | 46·9 | 229 | 158 | 69·0 | 9,912 13 6 | 6,007 6 6 | 60·6 |
| | 1921-22 ... | 395 | 16 | 379 | 185 | 48·8 | 345 | 227 | 65·7 | 15,781 8 7 | 4,817 5 2 | 30·5 |
| | 1920-21 ... | 344 | 17 | 327 | 131 | 40·6 | 318 | 170 | 53·4 | 13,651 11 1 | 7,270 2 6 | 53·2 |

## G.—A BRIEF REPORT ON THE WORKING OF THE KOLAR GOLD FIELD SANITARY BOARD DURING THE YEAR 1922-23.

(BY MR. S. HIRIANNAIYA, M.A., B.L., PRESIDENT, SANITARY BOARD.)

### *Constitution of the Board.*

There was no change in the constitution of the Sanitary Board during the year.

The number of official and non-official members was 7 and 8 respectively as in the previous year.

**Meetings and attendance** Six ordinary and two special meetings were held during the year, the average attendance of members at each meeting being 5·4 in the case of official members and 5·9 in case of non-official members.

### *New Bye-laws and Rules and Fresh Imposts.*

During the year, additions or alterations were made by the Board in the Rules or Bye-laws relating to the following subjects:—

(1) Revision of Rule 4 of Section 1 of the Sanitary Board Rules in the matter of the appointment of the Vice-President to the Sanitary Board.

(2) Addition to Vehicle Tax Rules exempting rural carts from payment of vehicle tax.

(3) Addition to Market Rules providing for the levy of a penalty of Re. 0-1-0 a day for stall rents not paid in time.

(4) Addition to Musafirkhana Rules directing that rent should be levied for the first three days of occupation of the first class Musafirkhana at Robertsonpet, instead of its being free.

(5) Defining the powers of the President and the Board in regard to appointments, dismissals, etc.

(6) Under the Mysore Prevention of Adulteration Regulation, IX of 1921,

(7) For regulating Dairies and Dairymen.

Items 5, 6 and 7 have been passed by the Board and are yet to be approved of by Government.

No fresh imposts were levied during the year.

### *Financial condition.*

The total receipts and expenditure under all heads amounted to Rs. 1,38,194 and Rs. 1,42,158 against Rs. 1,29,547 and Rs. 1,20,389 in the previous year, respectively, the opening and closing balances for the year under report being Rs. 18,087 and Rs. 14,123.

Excluding the amount under debt head and remittance to Bank, the revenue and expenditure under service heads were Rs. 1,03,312 and Rs. 96,796 against Rs. 1,07,075 and Rs. 1,16,234 in the previous year, respectively.

### *Receipts.*

There was a net decrease of Rs. 3,763 under receipts in the year, due chiefly to the amount, credited as cess on Excise and Forest Revenue by the Comptroller, being less by Rs. 10,009 and the Market and Slaughter House collections being less by Rs. 2,899. These were set off to some extent by increases under almost all the other heads, mohatarfa and local cess collected being more by Rs. 1,617, while Rs. 3,023 was recovered from the Income Tax Department on account of moiety of pay of the Revenue Officer.

### *Expenditure.*

The aggregate expenditure of the Board under service heads was Rs. 96,796 or Rs. 19,438 less than in the previous year, due chiefly to the adjustment in 1921-22 of a large sum due as arrears of maintenance charges of the water supply to Robertsonpet. There was not much variation under other heads.

The large increase of Rs. 23,083-9-0 under Public Debt head represents the amount kept as fixed deposit in the Bank of Mysore. Not merely was the original fixed deposit of Rs. 13,000 renewed, but an additional sum of Rs. 10,000 out of the cash balance was also kept during the year as fixed deposit for short periods.

### *Public Health and Vital Statistics.*

Public health was generally good during the year except for the prevalence of relapsing fever from October 1922 to June 1923. There were 437 cases of this fever treated in the Mining Hospital, the Civil Hospital and the Epidemic Diseases Hospital. As a result of the prompt treatment afforded, the disease was stamped out, at any rate for the time being, with only 34 deaths. The year was completely free from plague and cholera except for one isolated case of suspected cholera in March 1923 at Champion Reef.

The births and deaths recorded during the year were 3,394 and 2,259 against 3,650 and 2,165 in the previous year, respectively.

### *Medical relief.*

Appendix XVI shows that 53,096 patients were admitted and treated in the three Medical Institutions subsidised and maintained by the Sanitary Board against 34,414 in the previous year.

### *Labour cases.*

Labour cases to the number of 692 were attended to in the Maternity Hospital and the two midwives maintained by the Board, against 744 in the previous year.

The midwives maintained by the Mining Board attended to 1,147 labour cases in the Mining area.

### *Vaccinations.*

The total number of vaccinations done during the year was 9,420 against 5,135 in the previous year of which 8,403 were sucessful.

### *Principal measures, special schemes, etc.*

None during the year.

### *General.*

A market show was held on the 23rd and 24th December 1922 in Robertsonpet market. The entrance, gate and other fees realised a sum of Rs. 606 against an expenditure of Rs. 417-4-11 incurred for the show.

The subject of giving adequate representation to the inhabitants of Robertsonpet on the Sanitary Board or making Robertsonpet into a separate Municipality is under the consideration of Government.

*Oorgaum, K. G. F.,*
*20th September 1923.*

R. BOCQUET,
*Chief Inspector of Mines in Mysore.*

# STATE OF M

Table 1.

| | Nominal Capital £ Stg. | Number issued | dividends up to date £ Stg. | REMARKS |
|---|---|---|---|---|
| | 610,000 | 1,220,0 | 8,519 13 11 | (a) Values are taken from Companies' reports.<br>(b) In addition to this, the Company paid as dividends in 1889 a sum of £87,500, being the realization by sale of property to the Champion Reef Company. |
| | Ord. 290,000 | 181,5 | 9,151 2 6 | |
| | Pref. 120,000 | 240,0 | 3,501 9 4 | (c) In addition to this amount, £8,843-15-0 on the agreed valuation of 2s. 6d. per share on 70,750 shares of the Jibutil Gold Mines of Anantapur, Ld., were distributed on 13th December 1911. |
| | 283,000 | 566,0 | | |
| | Ord. 106,300 | 212,5 | 5,302 11 6 | (d) Includes £140,652-19-10 paid by the then Nundydroog Gold Mining Co., Ld. |
| | Pref. 47,700 | 95,4 | | |
| | 1,457,000 | 2,815,4 | 6,481 0 3 | |
| | ...... | 6 | ...... | |
| | ...... | .... | .... | |
| | 260,000 | 520, | 16,966 8 6 | (e) Calls outstanding £1,557-1-6 |
| | 260,000 | 52 | 16,966 8 6 | |
| | ...... | 2 | ...... | |
| | ...... | .... | ...... | |
| | ...... | .... | ...... | |
| | ...... | .... | ...... | |
| 5 | 1,717,000 | 8,33 | ,023,680 6 2 | (f) Includes £30,632-11-11 paid by the Coromandel Gold Mining Co. of India, Ld., and £19,600-5-6 paid by the Mysore West and the Mysore Wynaad Gold Companies, Ld. |
| | ...... | 2 | ...... | |
| | .. ... | ... | ...... | |

Table 1.

# STATEMENT OF CAPITAL EMPLOYED, ETC., IN GOLD MINES WORKING IN THE STATE OF MYSORE FOR THE YEARS 1921 AND 1922.

## 1921

| NAME OF MINING COMPANY | Nominal Capital £ Stg. | Shares: Number issued | Shares: Par Value Shillings | Shares: December Prices Min. | Shares: December Prices Max. | Paid-up Capital: Per Share Shillings | Paid-up Capital: Total £ Stg. | Dividends Paid: Amount £ Stg. | Dividends Paid: Percentage of Paid-up Capital | Bullion Produced: Bar Gold Ounces | Bullion Produced: Value £ Stg. | Royalty Payable to Government: At 5 per cent on the value of gold produced £ Stg. | Royalty Payable to Government: At 2½ per cent on the dividends declared £ Stg. | Royalty Payable to Government: Total £ Stg. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **A. DIVIDEND PAYING** | | | | | | | | | | | | | | |
| The Mysore Gold Mining Company, Limited ... | 610,000 | 1,220,000 | 10 | 10/9 | 11/9 | 10 | 610,000 0 0 | 152,500 0 0 | 25 | 144,482·06 | 688,507 15 7 | 34,425 7 9 | 3,812 10 0 | 38,237 17 9 |
| The Ooregum Gold Mining Company of India, Limited .. | Ord. 290,000 | 481,544 | 10 | 10/9 | 11/9 | 10 | 240,772 0 0 | 51,173 14 0 | 22½ | 110,678·60 | 538,798 16 0 | 26,939 18 10 | 2,329 6 10 | 29,269 5 8 |
| | Pref. 120,000 | 240,000 | 10 | ⅞ | 1 9/16 | 10 | 120,000 0 0 | 39,000 0 0 | 32½ | | | | | |
| The Nundydroog Mines, Limited ... | 283,000 | 565,426 | 10 | 7/6 | 8/6 | 10 | 282,713 0 0 | 42,406 19 0 | 15 | 71,735·81 | 334,021 11 0 | 16,701 1 8 | 1,060 3 6 | 17,761 5 2 |
| The Balaghat Gold Mines, Limited ... | Ord. 106,300 | 212,430 | 10 | 5/9 | 6/9 | 10 | 106,215 0 0 | 24,017 7 6 | 12½ | 32,616·17 | 151,700 3 1 | 7,585 0 2 | 600 8 8 | 8,185 8 10 |
| | Pref. 47,700 | 95,400 | 10 | ½ | 9/16 | 10 | 47,700 0 0 | | 22½ | | | | | |
| Total ... | 1,457,000 | 2,814,800 | .. | ... | .. | ... | 1,407,400 0 0 | 312,098 0 6 | 22·18 | 359,512·94 | 1,713,028 8 8 | 85,651 8 5 | 7,802 9 0 | 93,453 17 5 |
| Increase for 1922 | | | | | | | | | | | | | | |
| Decrease for 1922 | | | | | | | | | | | | | | |
| **B. PRODUCING GOLD, BUT NOT PAYING DIVIDENDS.** | | | | | | | | | | | | | | |
| The Champion Reef Gold Mines of India, Limited ... | 260,000 | 490,927<br>7 | 10 | 1/— | 1/6 | 5<br>10 | 122,781 15 0<br>3 10 0 | ...... | ... | 63,019·84 | 302,540 0 1 | 15,127 0 0 | .... | 15,127 0 0 |
| Total ... | 260,000 | 490,934 | | ... | ... | ... | 122,785 5 0 | ...... | ... | 63,019·84 | 302,540 0 1 | 15,127 0 0 | ...... | 15,127 0 0 |
| Increase for 1922 | | | | | | | | | | | | | | |
| Decrease for 1922 | | | | | | | | | | | | | | |
| **C. WORKING, BUT NOT PRODUCING GOLD.** Nil. | ...... | ...... | ... | ... | ... | ... | ...... | ...... | ... | ...... | | | | |
| Total .. | ...... | ...... | ... | ... | ... | ... | ...... | ...... | ... | ...... | | | | .. |
| Total of A, B and C ... | 1,717,000 | 3,305,734 | ... | ... | ... | ... | 1,530,135 5 0 | 312,098 0 6 | 20·40 | 422,532·78 | 2,015,568 8 9 | 100,778 8 5 | 7,802 9 0 | 108,580 17 5 |
| Increase for 1922 | | | | | | | | | | | | | | |
| Decrease for 1922 | | | | | | | | | | | | | | |

## 1922

| NAME OF MINING COMPANY | Nominal Capital £ Stg. | Shares: Number issued | Shares: Par Value Shillings | Shares: December Prices Min. | Shares: December Prices Max. | Paid-up Capital: Per Share Shillings | Paid-up Capital: Total £ Stg. | Dividends Paid: Amount £ Stg. | Dividends Paid: Percentage of Paid-up Capital | Bullion Produced: Bar Gold Ounces | Bullion Produced: Value £ Stg. (a) | Royalty payable to Government: At 5 per cent on the value of gold produced £ Stg. | Royalty payable to Government: At 2½ per cent on the dividends declared £ Stg. | Royalty payable to Government: Total £ Stg. | Total dividends paid up to date £ Stg. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **A. DIVIDEND PAYING** | | | | | | | | | | | | | | | |
| The Mysore Gold Mining Company, Limited | 610,000 | 1,220,000 | 10 | 10/9 | 11/9 | 10 | 610,000 0 0 | 122,000 0 0 | 20 | 145,909·802 | 600,334 17 7 | 30,016 14 11 | 3,050 0 0 | 33,066 14 11 | (b) 9,268,519 13 11 |
| The Ooregum Gold Mining Company of India, Limited | Ord. 290,000 | 481,544 | 10 | 14/6 | 15/6 | 10 | 240,772 0 0 | 48,154 8 0 | 20 | 111,504·520 | 477,825 1 4 | 23,891 5 1 | 2,103 17 2 | 25,995 2 3 | 3,179,154 2 6 |
| | Pref. 120,000 | 240,000 | 10 | 1/— | 1 1/16 | 10 | 120,000 0 0 | 36,000 0 0 | 30 | | | | | | |
| The Nundydroog Mines, Limited | 283,000 | 566,000 | 10 | 8/— | 9/— | 10 | 283,000 0 0 | 28,299 9 6 | 10 | 72,255·761 | 295,164 4 11 | 14,758 4 3 | 707 9 9 | 15,465 14 0 | (c&d) 2,613,504 9 4 |
| The Balaghat Gold Mines, Limited | Ord. 106,300 | 212,530 | 10 | 11/— | 12/— | 10 | 106,265 0 0 | 10,626 10 0 | 10 | 37,794·856 | 153,736 1 7 | 7,686 16 1 | 504 3 3 | 8,190 19 4 | 295,803 14 6 |
| | Pref. 47,700 | 95,400 | 10 | 15/— | 16/— | 10 | 47,700 0 0 | 9,540 0 0 | 20 | | | | | | |
| Total | 1,457,000 | 2,515,474 | ... | . | ... | ... | 1,407,737 0 0 | 251,620 7 6 | 18·09 | 367,464·439 | 1,527,060 5 5 | 76,353 0 4 | 6,365 10 2 | 82,718 10 6 | 15,356,481 0 3 |
| Increase for 1922 | ...... | 674 | ... | ... | .. | ... | 337 0 0 | ...... | ... | 7,951·499 | ...... | ...... | ...... | | |
| Decrease for 1922 | ..... | ...... | ... | ... | ... | ... | ...... | 57,477 18 0 | 4·09 | ...... | 185,968 3 3 | 9,298 8 1 | 1,436 18 10 | 10,735 6 11 | |
| **B. PRODUCING GOLD, BUT NOT PAYING DIVIDENDS.** | | | | | | | | | | | | | | | |
| The Champion Reef Gold Mines of India, Limited | 260,000 | 520,000 | 10 | 5/9 | 6/3 | 10 | (e) 258,442 18 6 | ...... | .. | 62,095·161 | 262,372 1 8 | 13,118 12 3 | ...... | 13,118 12 3 | 4,616,966 8 6 |
| Total | 260,000 | 520,000 | ... | ... | ... | ... | 258,442 18 6 | ...... | .. | 62,095·161 | 262,372 4 8 | 13,118 12 3 | ...... | 13,118 12 3 | 4,616,966 8 6 |
| Increase for 1922 | | 29,066 | ... | ... | ... | ... | 135,707 13 6 | ...... | ... | ...... | | | | | |
| Decrease for 1922 | | | | .. | .. | ... | ...... | ...... | ... | 924·679 | 40,167 15 5 | 2,008 7 9 | ...... | 2,008 7 9 | |
| **C. WORKING, BUT NOT PRODUCING GOLD.** Nil. | | ...... | ... | ... | ... | ... | ...... | ...... | ... | ...... | ...... | ...... | ...... | ...... | ...... |
| Total of A, B and C | 1,717,000 | 3,335,474 | | | | | 1,666,179 18 6 | 251,620 7 6 | 15·28 | 429,559·600 | 1,789,432 10 1 | 89,471 12 7 | 6,365 10 2 | 95,837 2 9 | (f) 2,023,680 6 2 |
| Increase for 1922 | | 29,740 | | | | | 136,044 18 6 | | | 7,026·820 | | | | | |
| Decrease for 1922 | | | | | | | | 57,477 18 0 | 5·12 | | 226,135 18 8 | 11,306 15 10 | 1,436 18 10 | 12,743 11 8 | |

### REMARKS

(a) Values are taken from Companies' reports.

(b) In addition to this, the Company paid as dividends in 1889 a sum of £87,500, being the realization by sale of property to the Champion Reef Company.

(c) In addition to this amount, £5,843-15-0 on the agreed valuation of 2s. 6d. per share on 70,750 shares of the Jibutil Gold Mines of Anantapur, Ld., were distributed on 13th December 1911.

(d) Includes £140,652-19-10 paid by the then Nundydroog Gold Mining Co., Ld.

(e) Calls outstanding £ 1,557-1-6

(f) Includes £30,632-11-11 paid by the Coromandel Gold Mining Co. of India, Ld., and £19,600-5-6 paid by the Mysore West and the Mysore Wynaad Gold Companies, Ld.

## SORE DURING THE

Table 2.

| Number In use | Used for | | Nominal H. P. | Maximum H. P. developed | Annual consumption B. O. T. Units | REMARKS |
|---|---|---|---|---|---|---|
| | Ca | ar Mines Power | | | | |
| 28 | 6 Air Compressors<br>2 Mill<br>2 Ventilating Fans<br>9 Pumps<br>5 Slimes Plant<br>4 Tube Mills | t | 3,414·25 | 1,954·00 | 2,078,601 | |
| 20 | 6 Air Compressors<br>2 Mill<br>3 Ventilating Fans<br>4 Pumps<br>2 Slimes Plant<br>3 Tube Mills | ws<br>tion Plant | 633·00 | 229·00 | 449,751 | |
| 29 | 7 Air Compressors<br>2 Mill<br>3 Cyanide and Slimes Plant<br>8 Pumps<br>5 Ventilating Fans<br>3 Tube Mills<br>1 Fitting Shop | s | 3,198·00 | 2,707·00 | 1,186,014 | |

# MACHINERY AND PLANT IN USE AT THE MINES IN THE STATE OF MYSORE DURING THE YEAR 1922.

## SPECIFICATION No. 1.

Table 2.

| NAME AND SITUATION OF MINE | STEAM POWER | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | BOILERS | | | | | | STEAM ENGINES | | | | | | | | | | | | | | | | | | |
| | Number | | Aggregate Area and Capacity (of those in use) | | | | Winding and Hauling | | | Pumping | | | Crushing | | | Air Compression | | | Locomotives | | | For other purposes | | | Total Maximum B. H. P. developed |
| | Total | In use | Grate Area. Sq. feet | Heating Surface. Sq. feet | Maximum Evaporative Capacity. Gallons per hour | Actual Evaporation Gallons per hour. | Number Total | Number In use | Maximum B. H. P. developed | Number Total | Number In use | Maximum B. H. P. developed | Number Total | Number In use | Maximum B. H. P. developed | Number Total | Number In use | Maximum B. H. P. developed | Number Total | Number In use | Maximum B. H. P. developed | Number Total | Number In use | Maximum B. H. P. developed | |
| 1. The Mysore Gold Mine, Bowringpet Taluk, Kolar District ... | 45 | 15 | 257·00 | 10,041·00 | 6,364·00 | 2,391·00 | 7 | 5 | 4,630 | 4 | ... | ... | ... | ... | ... | 3 | ... | ... | 3 | 1 | 30 | 4 | 1 | 12 | 4,672 |
| 2. The Champion Reef Gold Mine do do .. ... | 27 | 9 | 324·00 | 12,050·00 | 3,088·00 | 2,089·00 | 6 | 5 | 10,515 | 7 | 4 | 188 | ... | ... | ... | 3 | 2 | 700 | ... | ... | ... | ... | ... | ... | 11,403 |
| 3. The Ooregum Gold Mine do do ... .. | 23 | 9 | 431·50 | 9,666·00 | 5,222·50 | 3,802·50 | 5 | 5 | 2,856 | 4 | 1 | 148 | ... | ... | ... | 2 | ... | ... | ... | ... | ... | ... | ... | .. | 3,004 |
| 4. The Nundydroog Gold Mine do do ... ... | 14 | 10 | 298·50 | 7,423·00 | 4,068·00 | 2,051·50 | 3 | 3 | 1,715 | 1 | 1 | 250 | ... | ... | ... | 1 | 1 | 300 | ... | ... | ... | 1 | 1 | 100 | 2,365 |
| 5. The Balaghat Gold Mine do do ... ... | 12 | 3 | 112·40 | 2,766·00 | 1,348·00 | 676·00 | 3 | 3 | 920 | 1 | 1 | 105 | ... | ... | ... | 1 | ... | ... | ... | ... | ... | ... | ... | ... | 1,025 |
| 6. The United Steel Cos., Ld. (Workington Iron and Steel Branch), Shimoga Taluk, Shimoga District ... ... ... | 10 | 9 | 108·00 | 2,961·00 | 1,650·00 | 1,544·00 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 9 | 8 | 356 | 1 | 1 | 12 | 368 |
| 7. The Mysore Chromite, Ld., Mysore Taluk, Mysore District ... | 1 | ... | ... | ... | ... | ... | ... | ... | ... | 1 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Total ... | 132 | 55 | 1,531·40 | 44,907·00 | 21,740·50 | 12,554·00 | 24 | 21 | 20,636 | 18 | 7 | 691 | ... | ... | ... | 10 | 3 | 1,000 | 12 | 9 | 386 | 6 | 3 | 124 | 22,837 |
| Total for 1921 ... | 145 | 67 | 1,886·40 | 54,277·00 | 25,904·00 | 15,316·20 | 30 | 26 | 23,365 | 22 | 8 | 636 | ... | ... | ... | 12 | 6 | 2,172 | 12 | 9 | 386 | 6 | 3 | 124 | 26,683 |

| NAME AND SITUATION OF MINE | ELECTRICITY | | | | | | | | | | | | | | | | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LAMPS | | | MOTORS | | | | | | | | | | | | | |
| | | | | Cauvery Power | | | | | | | Kolar Mines Power | | | | | | |
| | Number | Equivalent connection in Kilowatts | Annual consumption B. O. T. Units. | Number Total | Number In use | Used for | Nominal H. P. | Rating in H. P. | Average constant H. P. absorbed | Annual consumption B. O. T. Units. | Number Total | Number In use | Used for | Nominal H. P. | Maximum H. P. developed | Annual consumption B. O. T. Units. | |
| 1. The Mysore Gold Mine, Bowringpet Taluk, Kolar District ... | 2,638 | 105·52 | 146,161 | 34 | 28 | 6 Air Compressors ... .. ..<br>2 Mill ... ... ...<br>2 Ventilating Fans .. ...<br>9 Pumps ... ... ...<br>5 Slimes Plant ... ... ...<br>4 Tube Mills ... ... ... | 5,247·00 | 4,481 | 3,503 | 22,845,600 | 52 | 47 | 1 Lifting Crane ... ... ...<br>2 Travelling Cranes ... ...<br>2 Electric Locomotives ... ..<br>4 Stone Crushers ... ... ..<br>10 Hoists ... ... ...<br>2 Fitting Shop ... ... ...<br>3 Cross Cut Saws ... ... ...<br>1 Sample Ore Grinder ... ...<br>6 Pumps ... .. ...<br>2 Blowers ... ... ...<br>4 Conveyor Belts ... ... ...<br>3 Sand and Slimes Plant .. ..<br>4 Endless Ropeways ... ..<br>2 Motor Generator Sets ... ...<br>1 Magnetic Separator ... .. | 3,414·25 | 1,954·00 | 2,078,601 | |
| 2. The Champion Reef Gold Mine do do .. ... | 1,450 | 51·02 | 104,739 | 22 | 20 | 6 Air Compressors ... ...<br>2 Mill ... ... ... ...<br>3 Ventilating Fans ... ...<br>4 Pumps ... ... ...<br>2 Slimes Plant ... ... ...<br>3 Tube Mills ... ... ... | 4,002·00 | 3,369 | 2,826 | 18,455,200 | 20 | 18 | 1 Stone Crusher .. ... ...<br>1 Pump ... ... ...<br>2 Ropeways ... ... ...<br>2 Hoists ... . ...<br>2 Fitting Shop ... .. ...<br>1 Assay House ... . ...<br>1 Machine Tool ... .. ...<br>2 Circular and Band Saws ... ...<br>4 Slimes and Concentration Plant ...<br>1 Fan ... ... ... ...<br>1 Electric Crane ... ... ... | 633·00 | 229·00 | 449,751 | |
| 3. The Ooregum Gold Mine do do ... .. | 1,960 | 78·40 | 119,112 | 29 | 29 | 7 Air Compressors ... ...<br>2 Mill ... ... ... ...<br>3 Cyanide and Slimes Plant ... ...<br>8 Pumps ... ... ...<br>5 Ventilating Fans ... ...<br>3 Tube Mills ... ... ..<br>1 Fitting Shop ... ... ... | 4,890·00 | 3,623 | 3,257 | 21,244,100 | 28 | 28 | 17 Hoists and Accessories ... .<br>1 Picking Floor ... ... ..<br>1 Fitting Shop ... ... ...<br>1 Carpenters' Shop... ... ...<br>2 Extractor House .. ...<br>1 Assay Office Crusher . .<br>1 Fan ... ... ...<br>1 Printing Press .. ..<br>1 Magnetic Separator .. ..<br>1 Blanket Machine ... ...<br>1 Endless Ropeway ... ... | 3,198·00 | 2,707·00 | 1,186,014 | |
| 4. The Nundydroog Gold Mine do do ... ... | 1,216 | 49·01 | 71,426 | 27 | 25 | 2 Slimes Plant ... ...<br>7 Air Compressors ... ...<br>2 Mill ... ... ... ...<br>9 Pumps ... ... ...<br>3 Tube Mills ... ... ...<br>1 Vortex Mixer ... ... ...<br>1 Extractor House ... ... | 2,999·00 | 2,389 | 2,027 | 13,035,300 | 26 | 25 | 10 Hoists and Accessories ... ...<br>1 Stone Breaker ... ... ...<br>2 Band Saws ... ... ...<br>2 Pumps... ... ... ...<br>1 Sample Crusher ... ... ...<br>1 Fitting Shop ... ... ...<br>1 Carpenters' Shop .. ... ...<br>2 Blowers ... ... ...<br>1 Mortar Mill ... ..<br>1 Cyanide Haulage ... ... ...<br>1 Slimes Plant ... ... ...<br>1 Fan ... ... ...<br>1 Endless Ropeway .. .. | 2,126·00 | 2,162·25 | 1,635,258 | |
| 5. The Balaghat Gold Mine do do ... ... | 681 | 26·48 | 29,213 | 33 | 30 | 4 Air Compressors ... ...<br>12 Pumps ... ... ...<br>2 Mill ... ... ...<br>7 Slimes Plant ... ... ...<br>1 Ventilating Fan ... ...<br>1 Dump Retreatment Plant ...<br>3 Tube Mills ... ... ... | 1,561·50 | 1,451 | 1,292 | 8,489,100 | 11 | 11 | 1 Fitting Shop ... .. ...<br>2 Slimes Plant ... ... ...<br>1 Saw Mill ... ... ...<br>1 Stone Breaker ... .. ...<br>2 Hoists ... ... ..<br>3 Fans ... ... ... ...<br>1 Endless Ropeway... ... ... | 336·00 | 317·00 | 312,299 | |
| 6. The United Steel Cos., Ld. (Workington Iron and Steel Branch), Shimoga Taluk, Shimoga District ... ... ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | | ... | ... | ... | .. | |
| 7. The Mysore Chromite, Ld., Mysore Taluk, Mysore District ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | | ... | ... | .. | .. | |
| Total ... | 7,945 | 301·48 | 470,651 | 145 | 132 | ... | 18,699·50 | 15,318 | 12,905 | 84,069,300 | 137 | 129 | ... | 9,707·25 | 7,369·25 | 5,661,923 | |
| Total for 1921 ... | 7,192 | 266·20 | 508,604 | 120 | 119 | ... | 16,608·00 | 13,804 | 11,491 | 75,096,500 | 110 | 100 | ... | 8,015·50 | 6,191·25 | 4,563,387 | |

### Boilers classed according to Type

| TYPE OF BOILER | NUMBER | | AGGREGATE AREA AND CAPACITY (of those in use) | | | |
|---|---|---|---|---|---|---|
| | Total | In use | Grate Area. Sq. feet | Heating Surface. Sq. feet | Maximum Evaporative Capacity. Gallons per hour | Actual Evaporation. Gallons per hour |
| Cornish ... .. | 31 | 4 | 88·50 | 1,913·00 | 866·00 | 451·50 |
| Lancashire .. | 72 | 34 | 1,049·40 | 28,674·00 | 14,938·00 | 8,335·00 |
| Vertical . . | 4 | 3 | 29·00 | 422·00 | 79·50 | 210·50 |
| Locomotive .. . | 12 | 9 | 128·00 | 3,722·00 | 2,257·00 | 1,547·00 |
| Galloway . | 5 | 2 | 64·00 | 1,620·00 | 800·00 | 400·00 |
| Babcock . | 8 | 3 | 172·50 | 8,556·00 | 2,600·00 | 1,610·00 |
| Total | 132 | 55 | 1,531·40 | 49,907·00 | 21,740·50 | 12,554·00 |
| Total for 1921 . | 145 | 67 | 1,886·40 | 54,277·00 | 25,904·00 | 15,316·20 |

# HE MINES IN THE ST

## SPECIFICATION No. 2.

## Table 3.

| INES AND PUMPS (MINE PUMPS ONLY) (a) | | | | | | | ANT | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Electric | | | | Compr | | | | TUBE MILLS | | | CYANIDING | | | | |
| Number | | Maximum capacity in gallons per hour | Average quantity of water pumped. Gallons per hour | Number. | | | Number of holes per sq. inch | Number | | | Number of Vats | | Total Capacity of Vats. Tons | Total Capacity of Plant for 24 hours. Tons | REMARKS |
| Total | In use | | | Total | In use | | | Total | In use | Size | Total | In use | | | |
| 8 | 8 | 56,000 | 38,723 | 39 | 11 | 2 | 256 | 8 | 8 | 18'×6' | 14 | 14 | 2,800 | 800 | (a) Not including pumps for mills, cyanide works, etc. |
| ... | ... | ... | ... | 18 | 18 | 3 | 700 | 7 | 7 | 19'×4¼' | 6 | 5 | 1,200 | 160 | |
| 5 | 5 | 33,000 | 22,175 | 23 | 8 | 7 | 56, 400, & 1,000 | 3 | 2 | 22'×5½' | ... | ... | ... | ... | All sliming now carried out. |
| 6 | 6 | 76,840 | 20,608 | 22 | (b)21 | 3 | ,256,400 & 500 | 3 | 3 | 16'×6'<br>18'×6' | 8 | 8 | 1,760 | 211 | (b) Including 19 subsidiary donkey pumps for which no figures are available |
| 9 | 9 | 28,650 | 22,291 | 8 | 5 | 10 | 56 & 625 | 1 | 1 | 16'×5½'<br>16½'×4½'<br>22'×4½' | 1 | 1 | 800 | 200 | |
| 8 | 28 | 193,990 | 103,797 | 110 | 63 | 72 | ... | 25 | 24 | ... | 32 | 31 | 6,560 | 1,371 | |
| ... | ... | ... | ... | ... | ... | | ... | 22 | 19 | ... | 34 | 27 | 4,710 | 1,119 | |

# MACHINERY AND PLANT IN USE AT THE MINES IN THE STATE OF MYSORE DURING THE YEAR 1922.

## SPECIFICATION No. 2.

Table 3.

MINING MACHINERY

| NAME AND SITUATION OF MINE | WINDING ENGINES AND HOISTS | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Surface | | | | | | | | | Underground | | | | | | | | | Miscellaneous | | | | | | | | |
| | Steam | | | Electric | | | Compressed Air | | | Steam | | | Electric | | | Compressed Air | | | Steam | | | Electric | | | Compressed Air | | |
| | Number | | Maximum B. H. P. developed | Number | | Maximum B. H. P. developed | Number | | Maximum B. H. P. developed | Number | | Maximum B. H. P. developed | Number | | Maximum B. H. P. developed | Number | | Maximum B. H. P. developed | Number | | Maximum B. H. P. developed | Number | | Maximum B. H. P. developed | Number | | Maximum B. H. P. developed |
| | Total | In use | | Total | In use | | Total | In use | | Total | In use | | Total | In use | | Total | In use | | Total | In use | | Total | In use | | Total | In use | |
| 1. The Mysore Gold Mine, Bowringpet Taluk, Kolar District. | 7 | 5 | 4,630 | 3 | 3 | 1,600 | 6 | 3 | 130 | ... | ... | ... | 4 | 4 | 450 | 21 | 18 | 272 | ... | ... | ... | 3 | 3 | 13 | ... | ... | ... |
| 2. The Champion Reef Gold Mine do do ... | 6 | 5 | 10,515 | ... | ... | ... | 1 | 1 | 350 | ... | ... | ... | ... | ... | ... | 7 | 7 | 480 | ... | ... | ... | 3 | 3 | 40 | 3 | 2 | 26 |
| 3. The Ooregum Gold Mine do do ... | 5 | 5 | 2,856 | 3 | 3 | 795 | ... | .. | ... | ... | ... | ... | 3 | 3 | 1,575 | 17 | 11 | 231 | ... | ... | ... | 4 | 4 | 120 | ... | ... | ... |
| 4. The Nundydroog Gold Mine do do ... | 3 | 3 | 1,715 | 2 | 2 | 1,550 | 3 | 3 | 520 | ... | ... | ... | 1 | 1 | 350 | 14 | 14 | 301 | ... | ... | ... | 4 | 4 | 90 | ... | ... | ... |
| 5. The Balaghat Gold Mine do do ... | 3 | 3 | 920 | .. | ... | ... | ... | ... | ... | ... | ... | .. | 2 | 2 | 230 | 7 | 7 | 152 | ... | .. | ... | 1 | 1 | 15 | 1 | 1 | 8 |
| Total ... | 24 | 21 | 20,636 | 8 | 8 | 3,945 | 10 | 7 | 1,000 | ... | ... | ... | 10 | 10 | 2,605 | 66 | 57 | 1,436 | ... | ... | ... | 15 | 15 | 278 | 4 | 3 | 34 |
| Total for 1921 ... | 29 | 25 | 23,300 | 6 | 6 | 3,150 | 6 | 5 | 840 | ... | ... | ... | 8 | 8 | 1,964 | 76 | 71 | 1,945 | 3 | 3 | 105 | 10 | 10 | 130 | 5 | 4 | 36 |

| NAME AND SITUATION OF MINE | PUMPING ENGINES AND PUMPS (MINE PUMPS ONLY) (a) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Steam | | | | Electric | | | | Compressed Air | | | |
| | Number | | Maximum capacity in gallons per hour | Average quantity of water pumped. Gallons per hour | Number | | Maximum capacity in gallons per hour | Average quantity of water pumped. Gallons per hour | Number | | Maximum capacity in gallons per hour | Average quantity of water pumped. Gallons per hour |
| | Total | In use | | | Total | In use | | | Total | In use | | |
| 1. The Mysore Gold Mine, Bowringpet Taluk, Kolar District. | 1 | .. | ... | ... | 8 | 8 | 56,000 | 38,723 | 39 | 11 | 21,410 | 3,520 |
| 2. The Champion Reef Gold Mine do do ... | 8 | 1 | 10,000 | 4,434 | ... | ... | ... | ... | 18 | 18 | 30,264 | 3,800 |
| 3. The Ooregum Gold Mine do do ... | 2 | 1 | 8,690 | 616 | 5 | 5 | 33,000 | 22,175 | 23 | 8 | 7,960 | 2,400 |
| 4. The Nundydroog Gold Mine do do ... | 1 | 1 | 1,400 | 39 | 6 | 6 | 76,840 | 20,608 | 22 | (b)21 | 3,000 | 517 |
| 5. The Balaghat Gold Mine do do ... | 1 | 1 | 16,000 | 8,400 | 9 | 9 | 28,650 | 22,291 | 5 | 5 | 10,000 | 2,500 |
| Total ... | 11 | 4 | 36,090 | 13,489 | 28 | 28 | 193,990 | 103,797 | 110 | 63 | 72,634 | 12,737 |
| Total for 1921 ... | ... | ... | ... | ... | ... | .. | ... | ... | ... | ... | ... | ... |

| NAME AND SITUATION OF MINE | AIR COMPRESSORS | | | | | | | ROCK DRILLS | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Steam | | | Electric | | | Average air pressure in receiver | Average Number in use | | Approximate quantity of free air consumed per minute. |
| | Number | | Average quantity of free air delivered per minute. Cubic feet | Number | | Average quantity of free air delivered per minute. Cubic feet | | Stoping | Development | |
| | Total | In use | | Total | In use | | lbs. per sq. in. | | | Cubic feet |
| 1. The Mysore Gold Mine, Bowringpet Taluk, Kolar District. | 3 | ... | ... | 10 | 6 | 10,946 | 60 | 1·00 | 28·00 | 5,220·00 |
| 2. The Champion Reef Gold Mine do do ... | 3 | 2 | 515 | 6 | 6 | 11,313 | 55 | 9·25 | 29·51 | 6,982·20 |
| 3. The Ooregum Gold Mine do do ... | 2 | ... | ... | 7 | 6 | 9,319 | 59 | ... | 51·30 | 10,665·00 |
| 4. The Nundydroog Gold Mine do do ... | 1 | 1 | 1,154 | 8 | 7 | 7,347 | 48 | 3·33 | 27·07 | 4,560·00 |
| 5. The Balaghat Gold Mine do do ... | 1 | ... | ... | 4 | 1 | 3,127 | 50 | ... | 14·03 | 2,104·50 |
| Total ... | 10 | 3 | 1,669 | 35 | 29 | 42,052 | 56 | 13·58 | 149·94 | 29,531·70 |
| Total for 1921 ... | 12 | 7 | 6,715 | 32 | 31 | 50,902 | 53 | 6·67 | 137·26 | 30,517·60 |

REDUCING MACHINERY AND TAILINGS PLANT

| NAME AND SITUATION OF MINE | ORE FEEDERS | | | CRUSHING, GRINDING AND AMALGAMATING | | | | | | | | | | | | TUBE MILLS | | | CYANIDING | | | | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Rock breakers | | | Stamps | | | | | | | | | | | | | | | | |
| | Number | | Type | Number | | Type | Number | | Weight in lbs. of each head | Number of drops per minute | Height of drop in inches | Depth of discharge in inches | Screens | | Number | | Size | Number of Vats | | Total Capacity of Vats. Tons | Total Capacity of Plant for 24 hours. Tons | |
| | Total | In use (average) | | Total | In use | | Total | In use | | | | | Kind of screen | Number of holes per sq. inch | Total | In use | | Total | In use | | | |
| 1. The Mysore Gold Mine, Bowringpet Taluk, Kolar District. | 32 | 19 | Challenge with Hoscur Patent | 6 | 3 | 1 Blake Marsden<br>2 Bigelow | 160 | 95 | 1,150 | 96 | 7·50 | 2·50 | Woven wire | 256 | 8 | 8 | 18′ × 6′ | 14 | 14 | 2,800 | 800 | (a) Not including pumps for mills, cyanide works, etc. |
| 2. The Champion Reef Gold Mine do do ... | 21 | 16 | Challenge | 4 | 4 | Blake Marsden | 120 | 80 | 1,250 | 96 | 8·00 | 2·00 | Do ... | 700 | 7 | 7 | 19′ × 4½′ | 6 | 5 | 1,200 | 160 | |
| 3. The Ooregum Gold Mine do do ... | 20 | 15 | Do ... | 4 | 4 | 2 Do<br>2 Gates | 100 | 75 | 1,300 | 96 | 8·50 | 2·50 | Do ... | 256, 400, & 1,000 | 3 | 2 | 22′ × 5½″ | ... | ... | ... | .... | All sliming now carried out. |
| 4. The Nundydroog Gold Mine do do ... | 18 | 18 | Do ... | 3 | 2 | 1 Hadfield<br>1 Blake Marsden | 90 | 90 | 900 | 96 | 7·25 | 2·00 | Do .. | 200,256,400 & 500 | 3 | 3 | 16′ × 6′<br>18′ × 6′ | 8 | 8 | 1,760 | 211 | (b) Including 19 subsidiary donkey pumps for which no figures are available |
| 5. The Balaghat Gold Mine do do ... | 6 | 5 | Hoscur | 3 | 1 | Blake Marsden | 30 | 30 | 1,050 | 96 | 8·00 | 2·50 | Do ... | 256 & 625 | 4 | 4 | 16′ × 5½′<br>16½′ × 4½<br>22′ × 4½′ | 4 | 4 | 800 | 200 | |
| Total ... | 100 | 73 | ... | 20 | 14 | ... | 500 | 370 | 1,130 | 96 | 7·79 | 2·27 | ... | ... | 25 | 24 | ... | 32 | 31 | 6,560 | 1,371 | |
| Total for 1921 ... | 100 | 97 | ... | 20 | 15 | ... | 500 | 375 | 1,155 | 96 | 7·79 | 2·29 | ... | | 22 | 19 | | 34 | 27 | 4,710 | 1,119 | |

# RE DURING THE YEAR 1922.

Table 4.

| NA | | RSONS EMPLOYED | | | | | | | REMARKS |
|---|---|---|---|---|---|---|---|---|---|
| | | On Surface | | | | | | Total number of persons employed below ground and on surface | |
| | | | Indians | | | | | | |
| | | Anglo-Indians | Males | Females | Children under 12 years | Total | Tons handled per man per annum | | |
| 1. The Mysore Gold M | 74 | 96 | 2,530 | 555 | 460 | 3,715 | 215·89 | 7,382 | (*a*) Includes 12,868 tons from waste rock dumps, and 3,124 tons of quartz pebbles sent to Tube Mills. |
| 2. The Champion Reef | 64 | 66 | 1,774 | 372 | 136 | 2,412 | 168·94 | 4,919 | (*b*) Includes 8,771 tons of ore from waste dumps, 1,241 tons of ore from reserve and 3,630 tons of quartz pebbles sent to Tube Mills. |
| 3. The Ooregum Gold M | 59 | 61 | 1,447 | 141 | ... | 1,708 | 185·06 | 4,928 | (c) Includes 1,614 tons of pebbles sent to Tube Mills. |
| 4. The Nundydroog Gol | 39 | 50 | 1,418 | 334 | 94 | 1,935 | 163·20 | 3,930 | (d) Includes 1,968 tons of quartz pebbles sent to Tube Mills, 2,407 tons of ore from waste rock dumps, 248 tons of ore from surface stock and 112 tons of quartz crushed by the Ooregum Gold Mine. |
| 5. The Balaghat Gold M | 22 | 18 | 775 | 97 | 60 | 972 | 168·93 | 2,138 | (*e*) Includes 747 tons of quartz pebbles sent to Tube Mills. |
| 6. The United Steel C Taluk, Shimoga D | 4 | 29 | 413 | 148 | 35 | 629 | 199·04 | 629 | Manganese. |
| 7. Mr. B. Hutchappa's | .. | ... | 9 | 4 | 1 | 14 | ... | 14 | Do. |
| 8. The Mysore Mineral | .. | 1 | 5 | 25 | ... | 31 | ... | 31 | Do. |
| 9. Mr. V. Manickavelu drug District. | .. | ... | 13 | 22 | ... | 35 | ... | 35 | Do. |
| 10. Mr. J. Burr's Block, | .. | 1 | 3 | 20 | ... | 24 | ... | 24 | Do. |
| 11. The Mysore Chromit Taluk, Hassan Dis | .. | 2 | 42 | 47 | 18 | 109 | ... | 132 | Chromium. Includes output and labour figures on Pensamudra Block. |
| 12. Mr. J. Burrs's Bloc | .. | 1 | 21 | 9 | 2 | 33 | ... | 33 | Do. |
| 13. Messrs. V. Manicka Hassan District | .. | ... | 26 | 37 | 1 | 64 | ... | 64 | Do. |
| 14. Mr. M. L. Vardham | .. | ... | ... | .. | ... | ... | ... | ... | Magnesite. Labour figures included with those for Asbestos. |
| 15. The Mysore Chromi | .. | ... | ... | .. | ... | .. | ... | ... | Do. Labour figures included with those for Chromium. |
| 16. Mr. V. N. Krishna I | .. | ... | ... | ... | ... | .. | ... | ... | Do. Labour figures included with those for Mica. |
| 17. Messrs. The Tata Ir Mysore District | .. | ... | 31 | 28 | 5 | 64 | ... | 64 | Do. |
| 18. Mr. V. N. Krishna I | .. | ... | .. | ... | ... | ... | ... | ... | Asbestos. Labour figures included with those for Mica. |
| 19. Mr. M. L. Vardham | .. | ... | 34 | 25 | 14 | 73 | ... | 73 | Do. |
| 20. Mr. V. N. Krishna I and Yedatore Tal | .. | ... | 30 | 30 | 27 | 87 | ... | 87 | Mica. |
| 21. The Mica Mining C | .. | ... | 10 | 3 | ... | 13 | ... | 13 | Do. |
| 22. Mr. M. Srikantiah's | .. | ... | 10 | 12 | ... | 22 | .. | 22 | Do. |
| 23. Mr. V. Sundaramu District ... | .. | ... | 10 | 5 | ... | 15 | ... | 15 | Copper. |
| 24. Mr. V. Sundaramur Mysore District. | .. | ... | 5 | 3 | ... | 8 | ... | 8 | Graphite. |
| 25. Mr. G. Chennaveera | .. | ... | 21 | ... | ... | 21 | ... | 21 | Soap-stone. |
| 26. Mr. T. L. Narasing | .. | ... | 20 | ... | ... | 20 | ... | 20 | Do. |
| 27. The Mysore Iron Mi and Shimoga Tal | .. | ... | 198 | 39 | ... | 239 | ... | 239 | Iron ore. |
| 28. The Kolar Gold Fie District | .. | ... | 10 | ... | ... | 10 | ... | 10 | Limestone. |
| 29. The Mysore Iron Mi | .. | ... | 34 | 5 | ... | 39 | ... | 39 | Do. |
| 30. The Kolar Brick-ma Taluk, Bangalore | .. | ... | 13 | ... | ... | 13 | ... | 13 | Kaolin. |
| 31. The City Brick and galore District | .. | ... | 11 | 8 | 19 | 38 | ... | 38 | Do. |
| 32. Mr. G. Chennaveer | .. | ... | 19 | ... | ... | 19 | ... | 19 | Do. (China clay). |
| 33. Do | .. | ... | 24 | ... | ... | 24 | ... | 24 | Slate-stone. |
| | 4 | 325 | 8,956 | 1,969 | 872 | 12,386 | 186·71 | 24,964 | |
| | 2 | 267 | 8,829 | 2,105 | 1,019 | 12,452 | 171·20 | 25,596 | |

# STATEMENT OF WORK DONE AND NUMBER OF PERSONS EMPLOYED AT MINES WORKING IN THE STATE OF MYSORE DURING THE YEAR 1922.

Table 4

| NAME AND SITUATION OF MINE | MINING | | | | TONS OF MATERIAL TREATED | | | | | | | PERSONS EMPLOYED | | | | | | | | | | | | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | ORE | | | | | TAILINGS | | BELOW GROUND | | | | | ON SURFACE | | | | | | | |
| | | | | | | | | Milling and Amalgamating | | | | | | | | | | | Indians | | | | | |
| | Feet driven (including shafts sunk) | Shafts sunk (feet) | Stoping (cubic fathoms) | Total material excavated (tons) | Raised to surface | Percentage sorted out as waste | Ore obtained | Crushed by stamps and tube mills | Crushed per stamp per 24 hours | Sands and slimes treated by cyanide | Aggregate amount treated in mills and by tailings process | Europeans | Anglo-Indians | Indians | Total | Tons excavated per man per annum | Europeans | Anglo-Indians | Males | Females | Children under 12 years | Total | Tons handled per man per annum | Total number of persons employed below ground and on surface | |
| GOLD. | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1. The Mysore Gold Mine, Bowringpet Taluk, Kolar District | 1[illegible],891·00 | 1,497·00 | 7,[illegible]04·59 | 25[illegible],156·30 | 217,943·00 | 6·20 | 204,425·00 | (a)218,079·00 | [illegible] | [illegible] | 802,040·00 | 8 | 27 | 3,602 | 3,667 | 69·66 | 71 | 96 | 2,530 | 555 | 160 | 3,715 | 215·89 | 7,382 | (a) Includes 12,868 tons from waste rock dumps, and 3,124 tons of quartz pebbles sent to Tube Mills. |
| 2. The Champion Reef Gold Mine do do | 9,248·00 | 16·00 | 5,115·50 | 168,171·06 | 146,731·00 | 9·88 | 132,230·00 | (b)142,242·00 | 5·00 | 265,211·00 | 407,186·00 | 21 | 37 | 2,446 | 2,507 | 67·20 | 61 | 66 | 1,771 | 372 | 156 | 2,412 | 168·94 | 4,919 | (b) Includes 8,771 tons of ore from waste dumps, 1,241 tons of ore from reserve and 3,630 tons of quartz pebbles sent to Tube Mills. |
| 3. The Ooregum Gold Mine ... do do ... | 11,179·00 | 1,268·00 | 7,717·86 | 251,285·12 | 177,758·00 | 10·70 | 158,729·00 | (c)155,000·00 | 6·29 | 101,090·00 | 316,090·00 | 31 | 17 | 3,172 | 3,220 | 78·04 | 59 | 61 | 1,147 | 141 | | 1,708 | 185·06 | 4,928 | (c) Includes 1,614 tons of pebbles sent to Tube Mills. |
| 4. The Nundydroog Gold Mine do do . | 12,475·50 | 1,451·00 | 5,336·55 | 191,617·51 | 124,718·00 | 9·91 | 112,325·00 | (d)115,092·00 | 4·00 | 200,765·00 | 315,797·00 | 30 | 23 | 1,942 | 1,995 | 96·06 | 89 | 50 | 1,418 | 251 | [illegible] | [illegible] | 160·20 | 3,930 | (d) Includes 1,968 tons of quartz pebbles sent to Tube Mills, 2,407 tons of ore from waste rock dumps, 248 tons of ore from surface stock and 112 tons of quartz crushed by the Ooregum Gold Mine. |
| 5. The Balaghat Gold Mine do do | 6,972·00 | 75·00 | 1,210·25 | 61,909·20 | 61,408·00 | 27·38 | 44,593·00 | (e)42,[illegible]00 | 1·50 | 121,606·00 | 161,200·00 | 7 | 1 | 1,155 | 1,166 | 53·10 | 22 | 18 | 775 | 96 | 66 | [illegible] | 168·[illegible] | 2,[illegible] | (e) Includes 747 tons of quartz pebbles sent to Tube Mills. |
| OTHER MINERALS. | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6. The United Steel Cos., Ld., (Workington Iron and Steel Branch), Shimoga Taluk, Shimoga District ... ... ... ... ... | | | | 125,193·60 | . | .. | 16,082·08 | | | | | | | | | | 1 | 20 | 113 | 118 | .. | [illegible]29 | 199·[illegible] | 629 | Manganese. |
| 7. Mr. B. Hutchappa's Block, Chiknayakanhalli Taluk, Tumkur District | | | . | . | | | 168·00 | | | | | | | | | | | | 9 | 4 | 1 | 14 | | 14 | Do. |
| 8. The Mysore Minerals, Ld., Holalkere Taluk, Chitaldrug District | | ... | . | | ... | | | | | | | | | | | | | 1 | 5 | 25 | | 31 | | 31 | Do. |
| 9. Mr. V. Manickavelu Mudaliar's Block, Davangere and Jagalur Taluks, Chitaldrug District. ... ... ... ... | .. | ... | . | | . | | 2,016·00 | | | | | | | | | . | | | 13 | 22 | | 35 | . | 35 | Do. |
| 10. Mr. J. Burr's Block, Holalkere Taluk, Chitaldrug District ... | ... | | | . | | | 28·00 | | | | | | | | | | . | 1 | [illegible] | 20 | | 21 | | 21 | Do. |
| 11. The Mysore Chromite, Ld., Mysore Taluk, Mysore District and Arsikere Taluk, Hassan District | 1,020·00 | 120·00 | . | ..110·40 | . | | 313·92 | | | | | . | 1 | 21 | 22 | | | 2 | 12 | 17 | 8 | 10[illegible] | | 132 | Chromium. Includes output and labour figures on Pensamudra Block. |
| 12. Mr. J. Burrs's Block, Arsikere Taluk, Hassan District | | | | | .. | . | 165·76 | | | | | | | | | | | 1 | 21 | 1 | 2 | 25 | | 25 | Do. |
| 13. Messrs. V. Manickavelu Mudaliar & Son's Blocks, Channarayapatna Taluk, Hassan District .. ... ... ... ... | | | .. | | | . | 2,096·00 | | | | | | | | | | | | 26 | 37 | 1 | 64 | | 64 | Do. |
| 14. Mr. M. L. Vardhamaniah's Block, Hole-Narsipur Taluk, Hassan District | | . | | . | .. | | 5·60 | | | | | | | | . | | | | | | | | | | Magnesite. Labour figures included with those for Asbestos. |
| 15. The Mysore Chromite, Ld., Mysore Taluk, Mysore District | | | | . | . | | 275·52 | | | | | | | | ... | | | | . | | | | | | Do. Labour figures included with those for Chromium. |
| 16. Mr. V. N. Krishna Iyer's Block, Hole-Narsipur Taluk, Hassan District | ... | | | | . | | 28·00 | | | | | . | | | | | | | | | | | | | Do. Labour figures included with those for Mica. |
| 17. Messrs. The Tata Iron and Steel Co., Ld., Mysore and Nanjangud Taluks, Mysore District ... ... ... ... ... | ... | .. | .. | | . | | 953·12 | | | | | | | | | | | | 31 | 28 | 2 | 61 | | 61 | Do. |
| 18. Mr. V. N. Krishna Iyer's Block, Hole-Narsipur Taluk, Hassan District | | . | | ... | . | | 19·15 | | | | | | | | | | . | | | | | | | | Asbestos. Labour figures included with those for Mica. |
| 19. Mr. M. L. Vardhamaniah's Block, Hole-Narsipur Taluk, Hassan District . | | . | . | . | . | . | 259·81 | | | | | | | . | . | . | | . | 31 | 25 | 11 | 73 | | 73 | Do. |
| 20. Mr. V. N. Krishna Iyer's Blocks, Hole-Narsipur Taluk, Hassan District, and Yedatore Taluk, Mysore District ... ... ... ... | | . | | .. | . | | 6·21 | | | | | | | | | | | | 30 | 30 | 27 | 87 | | 87 | Mica. |
| 21. The Mica Mining Company, Seringapatam Taluk, Mysore District ... | | . | | | .. | ... | 3·86 | | | | | | . | | . | | . | | 10 | 5 | | 15 | | 15 | Do. |
| 22. Mr. M. Srikantiah's Block, Hassan Taluk, Hassan District | | | | .. | .. | . | 0·31 | | | | | | . | | | . | .. | | 10 | 12 | | 22 | | 22 | Do. |
| 23. Mr. V. Sundaramurthy Mudaliar's Block, Nanjangud Taluk, Mysore District ... ... ... ... ... ... | | | . | | . | | 11·20 | | | | | | | | | | | | 10 | 5 | | 15 | | 15 | Copper. |
| 24. Mr. V. Sundaramurthy Mudaliar's Block, Heggaddevankote Taluk, Mysore District. ... ... ... ... ... .. | | | | ... | | | 22·10 | | | | | | | | | | | | 5 | 3 | | 8 | | 8 | Graphite. |
| 25. Mr. G. Chennaveerappa's Block, Tiptur Taluk, Tumkur District | . | . | | ... | | ... | 11·70 | | | | | | | | | | | | 21 | | | 21 | | 21 | Soap-stone. |
| 26. Mr. T. L. Narasinga Bhan's Block, Tiptur Taluk, Tumkur District | | ... | | | .. | | 77·28 | | | | | | | | | | | | 20 | | | 20 | | 20 | Do. |
| 27. The Mysore Iron Mines, (Government areas) Tarikere Taluk, Kadur District and Shimoga Taluk, Shimoga District ... ... ... ... | .. | . | ... | | ... | ... | 32,751·40 | | | | | | ... | . | . | | 2 | | 198 | 30 | | 230 | | 230 | Iron ore. |
| 28. The Kolar Gold Field Prospecting Department, Bowringpet Taluk, Kolar District ... ... ... ... .. | ... | .. | | | . | ... | 784·46 | | | | | | . | . | | | .. | | 10 | . | | 10 | | 10 | Limestone. |
| 29. The Mysore Iron Mines, (Government areas) Shimoga Taluk, Shimoga District. | .. | | | | . | | 3,610·88 | | | | | | .. | .. | | | | | 34 | 5 | | 39 | | 39 | Do. |
| 30. The Kolar Brick-making Co., Ld., Malur Taluk, Kolar District, and Hoskote Taluk, Bangalore District ... ... ... ... ... | | ... | | | | | 2,635·75 | | | | | | .. | | | | | | 13 | | | 13 | .. | 13 | Kaolin. |
| 31. The City Brick and Tile Works, Dodballapur and Nelamangala Taluks, Bangalore District ... ... ... ... ... ... | | | | | | | 649·60 | | | | | . | | .. | | | | | 11 | 8 | 19 | 38 | | 38 | Do. |
| 32. Mr. G. Chennaveerappa's Block, Tumkur Taluk, Tumkur District | . | . | | | . | | 10·64 | | | | | | . | | . | . | | | 19 | | | 19 | | 19 | Do. (China clay). |
| 33. Do do Tiptur Taluk, do. | | | | . | . | | 13·11 | | | | | | .. | . | | | | | 21 | .. | | 24 | | 24 | Slate-stone. |
| Total ... | [illegible]0,778·50 | 4,428·00 | 26,944·78 | 1,057,076·19 | 728,558·00 | 10·17 | 715,905·24 | 672,963·00 | 5·45 | 1,832,650·00 | 2,005,613·00 | 131 | 109 | 12,338 | 12,578 | 73·98 | 264 | 325 | 8,956 | 1,969 | 872 | 12,386 | 186·71 | 24,964 | |
| Total for 1921 | [illegible]0,975·7[illegible] | 5,650·00 | 27,781·39 | 1,081,957·04 | 706,378·00 | 12·1[illegible] | 711,871·17 | 641,474·00 | 5·24 | 1,106,838·00 | 1,748,312·00 | 135 | 104 | 12,905 | 13,144 | 67·91 | 232 | 267 | 8,829 | 2,105 | 1,019 | 12,452 | 171·20 | 25,596 | |

Table 5.

| astings made local-y and imported | | | | PIG IRON, WROUGHT IRON AND IRON CASTINGS | | | SHOES | | Total of these costs per Ton milled | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|
| Quantity | Cost | Total Cost | Cost per Ton milled | Quantity | Cost | Cost per Ton milled | Quantity | | | |
| Tons | £ Stg. | £ Stg. | Shillings | Tons | £ Stg. | Shillings | Tons | £ | llings | |
| 168·34 | 901·80 | 5,527·82 | 0·51 | 344·66 | 3,627·12 | 0·333 | 59·63 | 1, | 31·87 | |
| 28·89 | 220·09 | 5,937·32 | 0·83 | 198·18 | 1,749·46 | 0·246 | 48·52 | | 32·43 | |
| ... | ... | 3,994·52 | 0·52 | 312·06 | 4,605·47 | 0·594 | 52·94 | 1, | 33·12 | |
| 40·64 | 1,042 59 | 3,479·16 | 0·60 | 233·61 | 2,726·30 | 0·474 | 53·59 | 1, | 44·18 | |
| 81·48 | 539·74 | 1,815·46 | 0·85 | 175·62 | 1,711·54 | 0·804 | 11·20 | | 44·31 | |
| ... | ... | 111·14 | ... | 3·08 | 20·21 | ... | ... | | ... | Manganese. |
| ... | ... | 30·00 | ... | ... | ... | ... | ... | | ... | Chromium. |
| 319·35 | 2,704·22 | 20,895·42 | 0·62 | 1,267·21 | 14·440·10 | 0·429 | 225·88 | 5, | 35·18 | |
| 441·82 | 3,828·54 | 21,363·05 | 0·66 | 1,089·72 | 14,576·12 | 0·453 | 224·84 | 5, | 37·60 | |

# STATEMENT OF QUANTITY AND COST OF MATERIALS CONSUMED AND WAGES PAID AT THE MINES WORKING IN THE STATE OF MYSORE FOR THE YEAR 1922.

Table 5.

| NAME AND SITUATION OF MINE | Fuel | | | | | | | | Electric Power | | | | Timber | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Indian Coal | | English Coal | | Firewood | | | | Cauvery Scheme | | Kolar Mines | | | | |
| | Tons used | Cost | Tons used | Cost | Tons used | Cost | Total Cost | Cost per Ton milled | Total Cost | Cost per Ton milled | Total Cost | Cost per Ton milled | Quantity | Cost | Cost per Ton milled |
| | | £ Stg. | | £ Stg. | | £ Stg. | £ Stg. | Shillings | £ Stg. | Shillings | £ Stg. | Shillings | C. ft. | £ Stg. | Shillings |
| 1. The Mysore Gold Mine, Bowringpet Taluk, Kolar District ... ... | 18,067·56 | 25,933·58 | ... | ... | 736·70 | 526·21 | 26,459·79 | 2·43 | 43,299·33 | 8·97 | 7,452·88 | 0·68 | 214,145 | 32,048·76 | 2·94 |
| 2. The Champion Reef Gold Mine do do .. ... | 17,335·92 | 25,149·16 | | .. | 599·48 | 428·20 | 25,577·36 | 3·60 | 32,205·23 | 4·53 | 1,562·40 | 0·22 | 80,884 | 10,302·05 | 1·41 |
| 3. The Ooregum Gold Mine do do ... ... | 14,873·71 | 20,847·67 | ... | ... | 638·70 | 523·01 | 21,370·68 | 2·76 | 41,301·40 | 5·33 | 4,274·86 | 0·55 | 164,455 | 20,299·62 | 2·62 |
| 4. The Nundydroog Gold Mine do do .. ... | 11,027·31 | 15,679·04 | ... | .. | 440·16 | 392·99 | 16,072·03 | 2·79 | 24,239·85 | 4·21 | 5,904·81 | 1·03 | 103,212 | 16,380·97 | 2·85 |
| 5. The Balaghat Gold Mine do do ... ... | 3,663·74 | 5,334·40 | ... | ... | 179·76 | 128·51 | 5,462·91 | 2·57 | 14,246·19 | 6·70 | 1,127·12 | 0·53 | 43,118 | 7,809·04 | 3·67 |
| 6. The United Steel Cos., Ld. (Workington Iron and Steel Branch), Shimoga Taluk, Shimoga District ... ... ... ... | 623·28 | 1,265·19 | ... | ... | 2,103·92 | 868·67 | 2,133·86 | ... | ... | ... | ... | ... | ... | ... | ... |
| 7. The Mysore Chromite, Ld., Mysore Taluk, Mysore District ... ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 1,529 | 153·00 | ... |
| Total ... | 65,611·52 | 94,209·04 | ... | ... | 4,698·72 | 2,867·59 | 97,076·63 | 2·82 | 155,291·50 | 4·62 | 20,322·07 | 0·60 | 607,343 | 86,998·44 | 2·58 |
| Total for 1921 ... | 82,034·08 | 108,863·02 | ... | ... | 5,664·39 | 3,165·78 | 112,028·80 | 3·44 | 140,713·09 | 4·39 | 15,733·39 | 0·49 | 767,379 | 104,047·67 | 3·24 |

| NAME AND SITUATION OF MINE | Explosives | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Blasting Gelatine | | Dynamite and other Explosives | | Detonators | | Fuse | | | | |
| | Quantity | Cost | Quantity | Cost | Number of boxes (100 per box) | Cost | Number of coils (24 feet per coil) | Cost | Total Cost | Cost per Ton excavated | Cost per Ton milled |
| | lbs. | £ Stg. | lbs. | £ Stg. | | £ Stg. | | £ Stg. | £ Stg. | Shillings | Shillings |
| 1. The Mysore Gold Mine, Bowringpet Taluk, Kolar District ... ... | 112,791 | 10,875·34 | 41,209 | 3,482·13 | 3,792·76 | 1,162·39 | 41,084 | 1,895·23 | 17,415·09 | 1·36 | 1·60 |
| 2. The Champion Reef Gold Mine do do .. ... | 30,402 | 2,850·23 | 89,517 | 7,273·25 | 2,271·25 | 635·96 | 26,251 | 1,175·96 | 11,935·39 | 1·42 | 1·68 |
| 3. The Ooregum Gold Mine do do ... ... | 99,656 | 9,813·17 | 49,808 | 4,220·73 | 3,259·80 | 1,001·43 | 42,310 | 1,970·82 | 17,006·15 | 1·35 | 2·19 |
| 4. The Nundydroog Gold Mine do do .. ... | 97,252 | 9,419·38 | 3,780 | 315·63 | 2,088·00 | 540·73 | 39,805 | 1,855·10 | 12,530·84 | 1·31 | 2·18 |
| 5. The Balaghat Gold Mine do do ... ... | 48,240 | 4,539·25 | 13,565 | 1,144·54 | 1,339·00 | 411·46 | 17,339 | 782·68 | 6,877·93 | 2·22 | 3·23 |
| 6. The United Steel Cos., Ld. (Workington Iron and Steel Branch), Shimoga Taluk, Shimoga District ... ... ... ... | ... | ... | 556 | 28·56 | 8·00 | 2·96 | 126 | 6·99 | 38·51 | ... | ... |
| 7. The Mysore Chromite, Ld., Mysore Taluk, Mysore District ... ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Total ... | 388,541 | 37,497·37 | 198,435 | 16,464·84 | 13,658·81 | 4,154·92 | 166,918 | 7,686·78 | 65,803·91 | 1·42 | 1·95 |
| Total for 1921 ... | 353,073 | 33,146·63 | 192,590 | 16,026·83 | 13,170·30 | 5,076·60 | 158,750 | 9,024·56 | 63,274·62 | 1·42 | 1·97 |

| NAME AND SITUATION OF MINE | Candles | | | Mercury | | | Cyanide | | | | Zinc | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Quantity | Cost | Cost per Ton milled | Quantity | Cost | Cost per Ton milled | Quantity | Cost | Cost per Ton treated | Cost per Ton milled | Quantity | Cost | Cost per Ton milled |
| | lbs. | £ Stg. | Shillings | lbs. | £ Stg. | Shillings | lbs. | £ Stg. | Shillings | Shillings | lbs. | £ Stg. | Shillings |
| 1. The Mysore Gold Mine, Bowringpet Taluk, Kolar District ... ... | 174,012 | 4,618·56 | 0·42 | 975·00 | 195·54 | 0·018 | 280,896 | 18,401·49 | 0·63 | 1·69 | 83,209 | 1,392·48 | 0·128 |
| 2. The Champion Reef Gold Mine do do .. ... | 120,143 | 3,225·83 | 0·45 | 1,875·00 | 300·00 | 0·042 | 117,521 | 6,961·20 | 0·52 | 0·98 | 29,008 | 538·21 | 0·076 |
| 3. The Ooregum Gold Mine do do ... ... | 118,016 | 2,821·94 | 0·36 | 1,141·00 | 230·39 | 0·030 | 92,492 | 5,944·25 | 0·74 | 0·76 | 14,702 | 334·27 | 0·043 |
| 4. The Nundydroog Gold Mine do do .. ... | 120,383 | 2,962·04 | 0·51 | 1,038·00 | 189·60 | 0·032 | 183,980 | 8,494·52 | 0·85 | 1·48 | 25,118 | 424·59 | 0·074 |
| 5. The Balaghat Gold Mine do do ... ... | 58,309 | 1,412·27 | 0·66 | 662·00 | 182·67 | 0·062 | 52,528 | 3,386·72 | 0·56 | 1·59 | 13,265 | 229·10 | 0·108 |
| 6. The United Steel Cos., Ld. (Workington Iron and Steel Branch), Shimoga Taluk, Shimoga District ... ... ... ... | 1 | 0·08 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 7. The Mysore Chromite, Ld., Mysore Taluk, Mysore District ... ... | 825 | 26·40 | .. | .. | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Total ... | 591,688 | 15,067·12 | 0·45 | 5,691·00 | 1,048·20 | 0·031 | 677,417 | 43,167·22 | 0·65 | 1·28 | 165,297 | 2,918·65 | 0·087 |
| Total for 1921 ... | 634,465 | 19,480·19 | 0·61 | 6,377·50 | 1,494·98 | 0·047 | 587,568 | 33,545·91 | 0·61 | 1·05 | 146,545 | 3,646·80 | 0·114 |

| NAME AND SITUATION OF MINE | Steel | | | | | | | | Pig Iron, Wrought Iron and Iron Castings | | | Shoes and Dies | | | Wages | | Total of these costs per Ton milled | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | For drills and jumpers | | Bars, plates and rolled sections, etc. | | Castings made locally and imported | | | | | | | | | | | | | |
| | Quantity | Cost | Quantity | Cost | Quantity | Cost | Total Cost | Cost per Ton milled | Quantity | Cost | Cost per Ton milled | Quantity | Cost | Cost per Ton milled | Total Amount | Per Ton milled | | |
| | Tons | £ Stg. | Tons | £ Stg. | Tons | £ Stg. | £ Stg. | Shillings | Tons | £ Stg. | Shillings | Tons | £ Stg. | Shillings | £ Stg. | Shillings | Shillings | |
| 1. The Mysore Gold Mine, Bowringpet Taluk, Kolar District ... ... | 25·12 | 1,378·13 | 147·11 | 3,247·89 | 168·34 | 901·80 | 5,527·82 | 0·51 | 344·66 | 3,627·12 | 0·338 | 59·63 | 1,509·90 | 0·14 | 185,514·97 | 17·01 | 31·87 | |
| 2. The Champion Reef Gold Mine do do .. ... | 78·67 | 4,911·27 | 48·36 | 805·96 | 28·89 | 220·09 | 5,937·32 | 0·83 | 198·18 | 1,749·46 | 0·246 | 48·52 | 986·66 | 0·14 | 129,413·36 | 18·20 | 32·43 | |
| 3. The Ooregum Gold Mine do do ... ... | 89·36 | 1,868·69 | 97·33 | 2,125·88 | ... | ... | 3,994·52 | 0·52 | 312·06 | 4,605·47 | 0·594 | 52·94 | 1,196·29 | 0·15 | 133,354·02 | 17·21 | 33·12 | |
| 4. The Nundydroog Gold Mine do do .. ... | 23·48 | 1,116·59 | 72·57 | 1,319·98 | 40·64 | 1,042·59 | 3,479·16 | 0·60 | 238·61 | 2,726·30 | 0·474 | 53·59 | 1,209·84 | 0·21 | 159,655·10 | 27·74 | 44·18 | |
| 5. The Balaghat Gold Mine do do ... ... | 12·82 | 697·62 | 44·30 | 578·10 | 61·48 | 539·74 | 1,815·46 | 0·85 | 175·62 | 1,711·54 | 0·804 | 11·20 | 319·95 | 0·15 | 49,767·42 | 23·39 | 44·31 | |
| 6. The United Steel Cos., Ld. (Workington Iron and Steel Branch), Shimoga Taluk, Shimoga District ... ... ... ... | ... | ... | 8·33 | 111·14 | ... | ... | 111·14 | ... | 3·08 | 20·21 | ... | ... | ... | ... | 14,898·27 | ... | ... | Manganese. |
| 7. The Mysore Chromite, Ld., Mysore Taluk, Mysore District ... ... | 0·42 | 30·00 | ... | ... | ... | ... | 30·00 | ... | ... | ... | ... | ... | ... | ... | 1,318·40 | ... | ... | Chromium. |
| Total ... | 174·87 | 10,002·30 | 413·00 | 8,188·90 | 310·35 | 2,704·22 | 20,895·42 | 0·62 | 1,267·21 | 14,440·10 | 0·429 | 225·88 | 5,222·64 | 0·16 | 673,921·84 | 19·55 | 35·18 | |
| Total for 1921 ... | 124·95 | 6,621·36 | 435·11 | 10,913·15 | 441·82 | 3,828·54 | 21,363·05 | 0·66 | 1,089·72 | 14,576·12 | 0·453 | 224·84 | 5,323·22 | 0·17 | 685,604·84 | 20·97 | 37·60 | |

## Average Wages per Month.

| Class | Europeans | Indians |
|---|---|---|
| | £ Stg. | Rs. |
| Chief Underground Agents .. | 68·33 | ... |
| Assistant Underground Agents.. | 37·26 | ... |
| Foremen ... .. | 26·61 | ... |
| Timbermen ... .. | 19·98 | ... |
| Pitmen ... .. | 23·00 | ... |
| Machine mestris ... ... | ... | 36·50 |
| Machine coolies ... .. | ... | 24·60 |
| Hand jumper mestris .. | ... | 30·83 |
| Hand jumper coolies... .. | ... | 17·58 |
| Blasters ... .. | ... | 34·00 |
| Timber mestris ... .. | ... | 30·49 |
| Timber coolies ... ... | ... | 18·50 |
| Stuff mestris ... ... | ... | 32·73 |
| Stuff coolies ... ... | ... | 19·24 |
| Skip road mestris ... ... | ... | 32·30 |
| Skip road coolies ... ... | ... | 18·36 |
| Landers, platmen and bellmen... | ... | 21·81 |
| Chief Engineers ... | 76·83 | ... |
| Assistant Engineers ... | 41·42 | ... |
| Carpenters ... | 32·25 | 37·98 |
| Smiths ... | 35·10 | 39·32 |
| Engine Drivers ... .. | 22·55 | (1) 46·80<br>(2) 28·03 |
| Boiler smiths ... | 36·11 | 45·94 |
| Surface coolies ... | ... | 14·56 |
| Firemen ... ... | ... | 17·40 |
| Chief Reduction Officers .. | 69·17 | ... |
| Assistant Reduction Officers .. | 37·67 | ... |
| Millmen ... .. | 18·66 | ... |
| Chief Cyanide Chemists ... | 65·97 | ... |
| Assistant Cyanide Chemists | 38·37 | ... |
| Fitters ... ... | ... | (3) 47·19<br>(4) 32·70 |
| Average for above classes .. | £40·58 | Rs. 29·85 |
| Average for above classes in 1921 | £ 39·66 | Rs. 29·86 |

(1) First class.
(2) Second class
(3) Surface.
(4) Underground

# NG IN THE STATE OF MYSORE D

Table 6.

| MPS | FROM OTHER SOURCES | | TOTAL PRODUCTION FROM ALL SOURCES | | MINING | |
|---|---|---|---|---|---|---|
| | | | Fine Gold | Value | | |
| Percentage recovered | Fine Gold Ounces | £ Stg. | Ounces | £ Stg. | £ Stg. | Shillings per Ton excavated |
| 82·92 | (a) 2, 80·065 | 9,265·28 | 128 250·965 | 545,066·60 | 225.949·74 | 17·69 |
| 83·63 | 217·235 | 923·25 | 55,903·935 | 237,591·73 | 146,299·63 | 17·37 |
| 91·08 | 102·660 | 436·31 | 101,845·780 | 432,844·57 | 163,108·26 | 12·98 |
| 77·15 | 471·771 | 2,005·03 | 63,130·611 | 268,305·11 | 125,620·28 | 13·11 |
| 81·59 | (b) 1,334 956 | 5,673·56 | 32,823·886 | 139,501·52 | 66,871·12 | 21·60 |
| 82·44 | 4,306·687 | 18,303·43 | 381,955·177 | 1,623,309·53 | 727.849·03 | 15·67 |
| ... | ... | ... | 380,780·490 | 1,618,317·09 | 834.743·19 | 18·72 |

supplied by the
adjustment.

d obtained from

# TABLE OF GOLD PRODUCTION AND WORKING COSTS AT THE GOLD MINES WORKING IN THE STATE OF MYSORE DURING THE YEAR 1922.

Table 6.

| NAME AND SITUATION OF MINE | GOLD PRODUCTION | | | | | | | | | | | | | | | | | | | | | | | WORKING COSTS | | | | | | | Total Expenditure (including administration) | | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | From Mills and Tube Mills (current ore) | | | | | By Cyanide Process (current ore) | | | | | Total Production (current ore) | | | | Retreatment of Tailings Dumps | | | | | From other sources | | Total production from all sources | | Mining | | | Ore treatment (current ore) | | Retreatment of Tailings dumps | | | | |
| | | Fine Gold | Value | | | | Fine Gold | Value | | | Fine Gold | Value | | | | Fine Gold | Value | | | | | Fine Gold | Value | | | | Milling, Tube-milling and Cyaniding | | Tube-milling and Cyaniding | | | | |
| | Assay value of Ore treated. Shillings per Ton | Ounces | £ Stg. | Shillings per Ton | Percentage recovered | Assay value of Tailings. Shillings per Ton | Ounces | £ Stg. | Shillings per Ton | Percentage recovered | Ounces | £ Stg. | Shillings per Ton milled | Percentage recovered | Assay value of tailings Shillings per ton | Ounces | £ Stg. | Shillings per ton | Percentage recovered | Fine Gold Ounces | £ Stg. | Ounces | £ Stg. | £ Stg. | Shillings per Ton excavated | Shillings per Ton milled | £ Stg. | Shillings per Ton treated | £ Stg. | Shillings per Ton treated | Shillings per Ton of current ore treated | Shillings per ton milled including cost of retreatment of old dumps | |
| 1. The Mysore Gold Mine, Bowringpet Taluk, Kolar District ... | 42·81 | 89,878·130 | 381,982·05 | 35·03 | 81·83 | 7·99 | 19,059·640 | 81,003·47 | 7·43 | 92 98 | 108,937·770 | 462,985·52 | 42·46 | 99·18 | 4·80 | 17,133·130 | 72,815·80 | 3·98 | 82·92 | (a) 2, 80·065 | 9,265·28 | 128 250·965 | 545,066·60 | 225,949·74 | 17·69 | 20·72 | 49,493·88 | 4·54 | 56,975·41 | 3·11 | 31·43 | 36·66 | |
| 2. The Champion Reef Gold Mine do do ... | 30·55 | 41,055·770 | 174,487·02 | 24·53 | 80·31 | 5·37 | 7,139·540 | 30,343·05 | 4·27 | 79·45 | 48,195·310 | 204,830·07 | 28·80 | 94·27 | 6·19 | 7,491·390 | 31,838·41 | 5·18 | 83·63 | 217·235 | 923·25 | 55,903·935 | 237,591·73 | 146,299·63 | 17·37 | 20·57 | 33,470·94 | 4·71 | 22,292·47 | 3·62 | 31 63 | 31 77 | |
| 3. The Ooregum Gold Mine do do ... | 56·39 | 91,063·150 | 387,018·39 | 49·94 | 88·56 | 6·45 | 10,009·760 | 42,541·48 | 5·49 | 85·10 | 101,072·910 | 429,559·87 | 55·43 | 98·29 | 10·27 | 670·210 | 2,848·39 | 9·35 | 91·08 | 102·660 | 436·31 | 101,845·780 | 432,844·57 | 163,108·26 | 12·98 | 21·05 | 43,639·89 | 5·63 | 946·60 | 3·11 | 32·59 | 32·71 | Fine gold figures for twelve months supplied by the Mining Companies are subject to final adjustment.<br>(a) Obtained from Cyanide Slags.<br>(b) Includes 1,134·450 ozs. of fine gold obtained from old tailings dump at Nine Reefs. |
| 4. The Nundydroog Gold Mine do do ... | 44·48 | 49,891·660 | 212,039·56 | 36·85 | 82·84 | 7·95 | 9,309 350 | 39,564·74 | 6·88 | 86·48 | 59,201·010 | 251,604·30 | 43·72 | 98·30 | 4·45 | 3,457·830 | 14,695·78 | 3·43 | 77·15 | 471·771 | 2,005·03 | 63,130·611 | 268,305·11 | 125,620·28 | 13·11 | 21·83 | 30,100·24 | 5·23 | 16,490·92 | 3·85 | 34·45 | 37·32 | |
| 5. The Balaghat Gold Mine do do ... | 57·90 | 26,545·500 | 112,818·38 | 53·03 | 91·59 | 1·87 | 1,946·290 | 8,271·73 | 3·89 | 79·84 | 28,491·790 | 121,090·11 | 56·92 | 98·30 | 5·31 | 2,997·140 | 12,737·85 | 4·33 | 81·59 | (b) 1,334 956 | 5,673·56 | 32,823·886 | 139,501·52 | 66,871·12 | 21·60 | 31·43 | 11,879·52 | 5·58 | 10,688·69 | 3·61 | 15·64 | 50·87 | |
| Total ... | 44·59 | 298,434·210 | 1,268,345·40 | 37·69 | 84·54 | 6·88 | 47,464·580 | 201,724·47 | 6·00 | 87·14 | 345,898·790 | 1,470,069·87 | 43·69 | 97·98 | 5·12 | 31,749·700 | 134,936·23 | 4·22 | 82·44 | 4,306·687 | 18,303·43 | 381,955·177 | 1,623,309·53 | 727.849·03 | 15·67 | 21·63 | 168,584·47 | 5·01 | 107,394·09 | 3·36 | 33·16 | 36·36 | |
| Total for 1921 ... | 48·02 | 318,553·51 | 1,353,852·42 | 42·21 | 87·90 | 5·70 | 62,226·98 | 264,464·67 | 4·78 | 83·82 | ...... | ...... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 380,780·490 | 1,618,317·09 | 834,743·19 | 18·72 | 26·03 | ...... | ... | ...... | ... | ... | 41·76 | |

Value taken at 85 shillings per oz.

## NUMBER AND SORE DURING THE YEAR 1922. Table 7.

| NAME AND SITUATION OF | | | On Surface | | | | | Total due to | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | By other causes | Total Miscellaneous below Ground | By Machinery | Boilers and Steam Pipes bursting, etc. | On Railways, Tramways or Aerial Ropeways belonging to Mine | Miscellaneous | Total on Surface | Negligence | Recklessness | Unavoidable | Grand Total |
| Number | xix | | xx | xxi | xxii | xxiii | | | | | |
| 1 he Mysore Gold Mine, Bowringpet Taluk, Kola | 8 | 26 | 1 | ... | 2 | 2 | 5 | 4 | 7 | 32 | 43 |
| 2 The Champion Reef Gold Mine do d | 9 | 24 | 2 | ... | ... | 5 | 7 | 5 | 4 | 32 | 41 |
| 3 he Ooregum Gold Mine do d | 5 | 26 | 1 | ... | ... | 4 | 5 | 3 | 1 | 39 | 43 |
| 4 he Nundydroog Gold Mine do d | 6 | 23 | 1 | ... | 1 | ... | 2 | 6 | 5 | 25 | 36 |
| 5 he Balaghat Gold Mine do d | 4 | 9 | 1 | ... | ... | ... | 1 | 1 | 2 | 9 | 12 |
| | 32 | 108 | 6 | 0 | 3 | 11 | 20 | 19 | 19 | 137 | 175 |
| | 1 | 8 | 0 | 0 | 1 | 1 | 2 | | | | |
| Numb | 2 | 6 | 2 | 0 | 2 | 2 | 6 | | | | |
| | 29 | 94 | 4 | 0 | 0 | 8 | 12 | | | | |

# NUMBER AND CLASSIFICATION OF FATAL AND SERIOUS ACCIDENTS AT MINES WORKING IN THE STATE OF MYSORE DURING THE YEAR 1922.

Table 7.

| NAME AND SITUATION OF MINE | FALLS IN MINES | | | | IN AND AT SHAFTS | | | | | | | | MISCELLANEOUS BELOW GROUND | | | | | | | | | | ON SURFACE | | | | | TOTAL DUE TO | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Falls of Hanging Wall | Falls of Sides or Roof | Falls of Ore from working places | Total Falls | Over-winding | Ropes and Chains breaking | Whilst ascending or descending by Machinery | Falling into Shaft from Surface | Falling from part way down | Things falling from Surface | Things falling from part way down | Total in and at Shafts | Rock Bursts | Suffocation by Gases | Explosion due to Misfires | By Explosives (other than Misfires) | Falls of Persons or Things in Rises, Winzes and Stopes | On Inclined and Engine Planes | By Trams or Tubs, but not on Inclined and Engine Planes | By Machinery | By other causes | Total Miscellaneous, below Ground | By Machinery | Boilers and Steam Pipes bursting, etc. | On Railways, Tramways or Aerial Ropeways belonging to Mine | Miscellaneous | Total on Surface | Negligence | Recklessness | Unavoidable | Grand Total |
| Number of Class of Accident ... | i | ii | iii | | iv | v | vi | vii | viii | ix | x | | xi | xii | xiii | xiv | xv | xvi | xvii | xviii | xix | | xx | xxi | xxii | xxiii | | | | | |
| 1. The Mysore Gold Mine, Bowringpet Taluk, Kolar District ... ... | 2 | 1 | 4 | 7 | 1 | ... | ... | ... | 2 | ... | 2 | 5 | 11 | ... | 3 | 1 | 2 | ... | 1 | ... | 8 | 26 | 1 | ... | 2 | 2 | 5 | 4 | 7 | 32 | 43 |
| 2 The Champion Reef Gold Mine do do ... ... | ... | 4 | ... | 4 | ... | ... | 3 | ... | 1 | ... | 2 | 6 | 10 | ... | 1 | 1 | 2 | ... | 1 | ... | 9 | 24 | 2 | ... | ... | 5 | 7 | 5 | 4 | 32 | 41 |
| 3. The Ooregum Gold Mine do do ... ... | 2 | 4 | 3 | 9 | ... | ... | 2 | ... | 1 | ... | ... | 3 | 13 | ... | 1 | ... | 7 | ... | ... | ... | 5 | 26 | 1 | ... | ... | 4 | 5 | 3 | 1 | 39 | 43 |
| 4. The Nundydroog Gold Mine do do ... ... | 2 | 1 | 2 | 5 | 1 | ... | 2 | ... | 1 | ... | 2 | 6 | 11 | ... | 2 | 1 | 2 | ... | 1 | ... | 6 | 23 | 1 | ... | 1 | ... | 2 | 6 | 5 | 25 | 36 |
| 5. The Balaghat Gold Mine do do ... ... | ... | ... | ... | 0 | ... | ... | 1 | ... | 1 | ... | ... | 2 | 2 | ... | ... | ... | 2 | ... | 1 | ... | 4 | 9 | 1 | ... | ... | ... | 1 | 1 | 2 | 9 | 12 |
| Total ... | 6 | 10 | 9 | 25 | 2 | 0 | 8 | 0 | 6 | 0 | 6 | 22 | 47 | 0 | 7 | 3 | 15 | 0 | 4 | 0 | 32 | 108 | 6 | 0 | 3 | 11 | 20 | 19 | 19 | 137 | 175 |
| Number due to Negligence ... | 2 | 1 | 0 | 3 | 1 | 0 | 2 | 0 | 0 | 0 | 3 | 6 | 0 | 0 | 5 | 0 | 1 | 0 | 1 | 0 | 1 | 8 | 0 | 0 | 1 | 1 | 2 | | | | |
| Number due to Recklessness ... | 0 | 0 | 1 | 1 | 1 | 0 | 2 | 0 | 3 | 0 | 0 | 6 | | 0 | 1 | 2 | 0 | 0 | 1 | 0 | 2 | 6 | 2 | 0 | 2 | 2 | 6 | | | | |
| Number due to Unavoidable ... | 4 | 9 | 8 | 21 | 0 | 0 | 4 | 0 | 3 | 0 | 3 | 10 | 47 | 0 | 1 | 1 | 14 | 0 | 2 | 0 | 29 | 94 | 4 | 0 | 0 | 8 | 12 | | | | |

# NUMBER OF FATAL AND SERIOUS ACCIDENTS PER 1,000 PERSONS EMPLOYED AT MINES WORKNIG IN THE STATE OF MYSORE DURING THE YEAR 1922.

Table 8.

| NAME AND SITUATION OF MINE | NUMBER PER 1,000 DUE TO | | | Total per 1,000 | Total per 1,000 for the year 1921 | Total per 1,000 for the year 1920 | REMARKS |
|---|---|---|---|---|---|---|---|
| | Negligence | Recklessness | Unavoidable | | | | |
| 1. The Mysore Gold Mine, Bowringpet Taluk, Kolar District ... ... | 0·54 | 0·95 | 4·33 | 5·82 | 5·91 | 8·68 | In these columns, in order to avoid large and misleading figures in the case of mines employing less than 1,000 persons, the actual figures obtained for these mines have been modified in the following way:—<br>If the actual figure is less than the average (for all Mines), it is inserted here.<br>If the actual figure is greater than the average, the excess above the average is reduced in proportion of the number of persons employed to 1,000. The figure inserted here is equal to the average plus this reduced excess. |
| 2. The Champion Reef Gold Mine do do ... ... | 1·02 | 0·81 | 6·51 | 8·34 | 6·50 | 14·06 | |
| 3. The Ooregum Gold Mine do do ... ... | 0·61 | 0·20 | 7·91 | 8·72 | 8·74 | 14·40 | |
| 4. The Nundydroog Gold Mine do do ... ... | 1·53 | 1·27 | 6·36 | 9·16 | 10·67 | 10·60 | |
| 5. The Balaghat Gold Mine do do ... ... | 0·47 | 0·93 | 4·21 | 5·16 | 6·66 | 5·94 | |
| Average for all Mines ... | 0·76 | 0·76 | 5·49 | 7·01 | 6·76 | 10·20 | |
| Average for 1921 ... | 0·55 | 0·98 | 5·24 | | | | |

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## NUR THE YEAR 1922.

Table 9.

| NAME AND SITU | W GROUND | | | | ON SURFACE | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | By Trams or Tubs, but not on Inclined and Engine Planes | By Machinery | By other causes | Total Miscellaneous below Ground | By Machinery | Boiler and Steam Pipes bursting, etc. | On Railways, Tramways or Aerial Ropeways belonging to Mine | Miscellaneous | Total on Surface | Grand Total |
| | xvii | xviii | xix | | xx | xxi | xxii | xxiii | | |
| . The Mysore Gold Mine, Bowringpet Taluk, | ... | ... | 1 | 8 | 1 | ... | ... | ... | 1 | 12 |
| . The Champion Reef Gold Mine do | ... | ... | 1 | 23 | ... | ... | ... | 1 | 1 | 26 |
| . The Ooregum Gold Mine do | ... | ... | 1 | 9 | ... | ... | ... | ... | 0 | 11 |
| 4. The Nundydroog Gold Mine do | 1 | ... | ... | 10 | 1 | ... | ... | ... | 1 | 17 |
| 5. The Balaghat Gold Mine do | ... | ... | ... | 3 | 1 | ... | ... | ... | 1 | 6 |
| | 1 | 0 | 3 | 53 | 3 | 0 | 0 | 1 | 4 | 72 |

# NUMBER OF PERSONS KILLED IN ACCIDENTS AT MINES WORKING IN THE STATE OF MYSORE FOR THE YEAR 1922.

Table 9.

| NAME AND SITUATION OF MINE | FALLS IN MINES | | | | IN AND AT SHAFTS | | | | | | | | MISCELLANEOUS BELOW GROUND | | | | | | | | | | ON SURFACE | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Falls of Hanging Wall | Falls of Sides or Roof | Falls of Ore from working places | Total Falls | Over-winding | Ropes and Chains breaking | Whilst ascending or descending by Machinery | Falling into Shaft from Surface | Falling from part way down | Things falling from Surface | Things falling from part way down | Total in and at Shafts | Rock Bursts | Suffocation by Gases | Explosion due to Misfires | By explosives (other than Misfires) | Falls of Persons or Things in Rises, Winzes and Stopes | On Inclined and Engine Planes | By Trams or Tubs, but not on Inclined and Engine Planes | By Machinery | By other causes | Total Miscellaneous below Ground | By Machinery | Boiler and Steam Pipes bursting, etc. | On Railways, Tramways or Aerial Ropeways belonging to Mine | Miscellaneous | Total on Surface | Grand Total |
| Number of Class of Accident ... | i | ii | iii | | iv | v | vi | vii | viii | ix | x | | xi | xii | xiii | xiv | xv | xvi | xvii | xviii | xix | | xx | xxi | xxii | xxiii | | |
| 1. The Mysore Gold Mine, Bowringpet Taluk, Kolar District ... ... ... | 1 | ... | 1 | 2 | ... | ... | ... | ... | ... | ... | 1 | 1 | 6 | ... | 1 | ... | ... | ... | ... | ... | 1 | 8 | 1 | ... | ... | ... | 1 | 12 |
| 2. The Champion Reef Gold Mine do do ... ... ... | ... | ... | ... | 0 | ... | ... | 1 | ... | 1 | ... | ... | 2 | 20 | ... | 1 | 1 | ... | ... | ... | ... | 1 | 23 | ... | ... | ... | 1 | 1 | 26 |
| 3. The Ooregum Gold Mine do do ... ... ... | ... | ... | ... | 0 | ... | ... | 1 | ... | 1 | ... | ... | 2 | 1 | ... | 3 | ... | 4 | ... | ... | ... | 1 | 9 | ... | ... | ... | ... | 0 | 11 |
| 4. The Nundydroog Gold Mine do do ... ... ... | 1 | ... | ... | 1 | ... | ... | 2 | ... | 1 | ... | 2 | 5 | 7 | ... | 1 | ... | 1 | ... | 1 | ... | ... | 10 | 1 | ... | ... | ... | 1 | 17 |
| 5. The Balaghat Gold Mine do do ... ... ... | ... | ... | ... | 0 | ... | ... | 1 | ... | 1 | ... | ... | 2 | 2 | ... | ... | ... | 1 | ... | ... | ... | ... | 3 | 1 | ... | ... | ... | 1 | 6 |
| Total ... | 2 | 0 | 1 | 3 | 0 | 0 | 5 | 0 | 4 | 0 | 3 | 12 | 36 | 0 | 6 | 1 | 6 | 0 | 1 | 0 | 3 | 53 | 3 | 0 | 0 | 1 | 4 | 72 |

# NUMBER OF DURING THE YEAR 1922.

Table 10.

| NAME AND SITU | GROUND | | | | ON SURFACE | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | By Trams or Tubs, but not on Inclined and Engine Planes | By Machinery | By other causes | Total Miscellaneous below ground | By Machinery | Boilers and Steam Pipes bursting, etc. | On Railways, Tramways or Aerial Ropeways belonging to Mine | Miscellaneous | Total on Surface | Grand Total |
| | xvii | xviii | xix | | xx | xxi | xxii | xxiii | | |
| The Mysore Gold Mine, Bowringpet Taluk, | 1 | ... | 7 | 27 | ... | ... | 2 | 2 | 4 | 41 |
| The Champion Reef Gold Mine do | 1 | ... | 8 | 22 | 2 | ... | ... | 4 | 6 | 36 |
| The Ooregum Gold Mine do | ... | ... | 4 | 22 | 1 | .. | ... | 4 | 5 | 39 |
| The Nundydroog Gold Mine do | ... | ... | 6 | 22 | ... | ... | 1 | ... | 1 | 28 |
| The Balaghat Gold Mine do | 1 | ... | 4 | 7 | ... | ... | ... | ... | 0 | 7 |
| | 3 | 0 | 29 | 100 | 3 | 0 | 3 | 10 | 16 | 151 |

# NUMBER OF PERSONS SERIOUSLY INJURED IN ACCIDENTS AT MINES WORKING IN THE STATE OF MYSORE DURING THE YEAR 1922.

Table 10.

| NAME AND SITUATION OF MINE | FALLS IN MINES | | | | IN AND AT SHAFTS | | | | | | | | MISCELLANEOUS BELOW GROUND | | | | | | | | | | ON SURFACE | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Falls of Hanging Wall | Falls of Sides or Roof | Falls of Ore from working places | Total Falls | Over-winding | Ropes and Chains breaking | Whilst ascending or descending by Machinery | Falling into Shaft from Surface | Falling from part way down | Things falling from Surface | Things falling from part way down | Total in and at Shafts | Rock Bursts | Suffocation by Gases | Explosion due to Misfires | By Explosives (other than Misfires) | Falls of Persons or Things in Rises, Winzes and Stopes | On Inclined and Engine Planes | By Trams or Tubs, but not on Inclined and Engine Planes | By Machinery | By other causes | Total Miscellaneous below ground | By Machinery | Boilers and Steam Pipes bursting, etc. | On Railways, Tramways or Aerial Ropeways belonging to Mine | Miscellaneous | Total on Surface | Grand Total |
| Number of Class of Accident ... | i | ii | iii | | iv | v | vi | vii | viii | ix | x | | xi | xii | xiii | xiv | xv | xvi | xvii | xviii | xix | | xx | xxi | xxii | xxiii | | |
| 1 The Mysore Gold Mine, Bowringpet Taluk, Kolar District ... ... ... | 2 | 1 | 3 | 6 | 1 | ... | ... | ... | 2 | ... | 1 | 4 | 13 | ... | 3 | 1 | 2 | ... | 1 | ... | 7 | 27 | ... | ... | 2 | 2 | 4 | 41 |
| 2 The Champion Reef Gold Mine do do ... ... ... | ... | 4 | ... | 4 | ... | ... | 2 | ... | ... | ... | 2 | 4 | 11 | ... | ... | ... | 2 | ... | 1 | ... | 8 | 22 | 2 | ... | ... | 4 | 6 | 36 |
| 3 The Ooregum Gold Mine do do ... ... ... | 2 | 4 | 3 | 9 | ... | ... | 3 | .. | ... | ... | ... | 3 | 14 | ... | ... | ... | 4 | ... | ... | ... | 4 | 22 | 1 | .. | ... | 4 | 5 | 39 |
| 4. The Nundydroog Gold Mine do do .. .. ... | 1 | 1 | 2 | 4 | 1 | ... | ... | ... | ... | ... | ... | 1 | 13 | ... | 1 | 1 | 1 | ... | ... | ... | 6 | 22 | ... | ... | 1 | ... | 1 | 28 |
| 5 The Balaghat Gold Mine do do ... ... ... | ... | ... | ... | 0 | ... | ... | ... | ... | ... | ... | ... | 0 | 1 | ... | ... | ... | 1 | ... | 1 | ... | 4 | 7 | ... | ... | ... | ... | 0 | 7 |
| Total ... | 5 | 10 | 8 | 23 | 2 | 0 | 5 | 0 | 2 | 0 | 3 | 12 | 52 | 0 | 4 | 2 | 10 | 0 | 3 | 0 | 29 | 100 | 3 | 0 | 3 | 10 | 16 | 151 |

# RE AND IN THE TRANSVAAL.

Table 11.

| | TRANSVAAL | | | | | | | | | | | | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1911 | 1912 | 1913 | 1914 | 1915 | 1916 | 1917 | 1918 | 1919 | 1920 | 1921 | 1922 | |
| 1. Numbe | 10·11 | 10·75 | 11·50 | 10·79 | 10·67 | 10·40 | 9·97 | 10·18 | 12·09 | 13·89 | 23·58 | 18·82 | |
| 2. Death r | 1·46 | 1·49 | 1·44 | 1·00 | 1·12 | 1·13 | 0·78 | 1·07 | 0·68 | 0·92 | 0·69 | 0·78 | |
| 3. Death r | 5·58 | 4·96 | 4·82 | 4·16 | 3·93 | 3·83 | 3·34 | 3·12 | 3·16 | 3·05 | 2·87 | 2·64 | |
| 4. Death r | 4·33 | 4·02 | 3·96 | 3·35 | 3·27 | 3·22 | 2·59 | 2·47 | 2·41 | 2·38 | 2·19 | 1·85 | |
| 5. Numbe | 844 | 808 | 765 | 713 | 758 | 766 | 736 | 787 | 789 | 799 | 803 | 792 | |
| 6. Numbe | 3·65 | 3·23 | 3·03 | 2·39 | 2·41 | 2·47 | 1·99 | 2·05 | 1·99 | 2·00 | 1·86 | 1·71 | |
| 7. Numbe | 601 | 555 | 549 | 535 | 560 | 573 | 541 | 561 | 548 | 570 | 557 | 535 | |
| 8. Numbe | 2·60 | 2·23 | 2·17 | 1·79 | 1·83 | 1·81 | 1·46 | 1·46 | 1·38 | 1·43 | 1·29 | 1·16 | |
| 9. Averag | 27·98 | 28·95 | 27·90 | 26·65 | 26·32 | 26·71 | 27·15 | 28·02 | 28·70 | 28·05 | 28·83 | 29·58 | |

years.

# COMPARATIVE TABLE SHOWING THE MORTALITY AND OTHER ITEMS AT GOLD MINES WORKING IN THE STATE OF MYSORE AND IN THE TRANSVAAL.

Table 11.

| ITEMS. | MYSORE | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year ... | 1906 | 1907 | 1908 | 1909 | 1910 | 1911 | 1912 | 1913 | 1914 | 1915 | 1916 | 1917 | 1918 | 1919 | 1920 | 1921 | 1922 |
| 1. Number of separate accidents (fatal and serious) per 1,000 persons employed | 13·07 | 12·39 | 14·39 | 11·31 | 15·14 | 14·21 | 10·71 | 10·83 | 8·60 | 10·22 | 7·48 | 6·69 | 6·12 | 8·19 | 11·03 | 7·41 | 7·51 |
| 2. Death rate per 1,000 persons employed above ground ... ... ... | 0·66 | 0·39 | 0·28 | 0·36 | 0·95 | 0·59 | 0·49 | 0·28 | 0·28 | 0·09 | 0·48 | 0·29 | 0·17 | 0·56 | 0·20 | 0·29 | 0·37 |
| 3. Death rate per 1,000 persons employed below ground ... ... ... | 3·17 | 2·69 | 4·70 | 5·73 | 3·84 | 5·09 | 5·12 | 7·28 | 3·68 | 1·23 | 5·66 | 1·67 | 4·73 | 4·54 | 6·01 | 4·95 | 5·42 |
| 4. Death rate per 1,000 persons employed (above and below ground) ... | 2·30 | 1·92 | 3·08 | 3·64 | 2·72 | 3·35 | 3·36 | 4·38 | 2·28 | 2·59 | 3·52 | 2·81 | 2·90 | 2·79 | 3·55 | 2·91 | 3·09 |
| 5. Number of persons employed for each 100,000 tons of quartz crushed ... | 4,091 | 4,190 | 4,059 | 3,905 | 3,474 | 3,303 | 3,278 | 3,160 | 3,258 | 3,381 | 3,288 | 3,333 | 3,434 | 3,475 | 3,551 | 3,639 | 3,462 |
| 6. Number of persons killed for each 100,000 tons of quartz crushed ... | 9·41 | 8·04 | 12·49 | 14·20 | 9·45 | 11·07 | 11·01 | 13·84 | 7·44 | 8·77 | 11·58 | 9·37 | 9·94 | 9·69 | 12·63 | 10·60 | 10·70 |
| 7. Number of persons employed for each £100,000 worth of gold obtained ... | 1,403 | 1,499 | 1,422 | 1,374 | 1,288 | 1,229 | 1,225 | 1,186 | 1,209 | 1,233 | 1,188 | 1,185 | 1,261 | 1,304 | 1,317 | 1,442 | 1,435 |
| 8. Number of persons killed for each £100,000 worth of gold obtained ... | 3·23 | 2·88 | 4·37 | 5·00 | 3·50 | 4·12 | 4·11 | 5·20 | 2·76 | 3·20 | 4·18 | 3·33 | 3·66 | 3·63 | 4·68 | 4·20 | 4·44 |
| 9. Average value (in shillings) of quartz (gold obtained per ton crushed) ... | 58·33 | 55·97 | 57·12 | 56·83 | 53·96 | 53·72 | 53·54 | 53·28 | 53·87 | 54·86 | 55·38 | 56·25 | 54·33 | 53·27 | 53·97 | 50·46 | (a) 43·69 |

| ITEMS. | TRANSVAAL | | | | | | | | | | | | | | | | | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year ... | 1905-06 | 1906-07 | 1907-08 | 1908-09 | 1909-10 | 1911 | 1912 | 1913 | 1914 | 1915 | 1916 | 1917 | 1918 | 1919 | 1920 | 1921 | 1922 | |
| 1. Number of separate accidents (fatal and serious) per 1,000 persons employed | 10·11 | 8·73 | 8·66 | 9·57 | 9·95 | 10·11 | 10·75 | 11·50 | 10·79 | 10·67 | 10·10 | 9·97 | 10·18 | 12·09 | 13·89 | 23·58 | 18·82 | |
| 2. Death rate per 1,000 persons employed above ground ... ... ... | 1·45 | 1·40 | 1·31 | 1·48 | 1·32 | 1·46 | 1·49 | 1·44 | 1·00 | 1·12 | 1·13 | 0·78 | 1·07 | 0·68 | 0·92 | 0·69 | 0·78 | |
| 3. Death rate per 1,000 persons employed below ground ... ... ... | 7·97 | 6·48 | 5·60 | 7·23 | 5·98 | 5·58 | 4·96 | 4·82 | 4·16 | 3·93 | 3·83 | 3·34 | 3·12 | 3·16 | 3·05 | 2·87 | 2·64 | |
| 4. Death rate per 1,000 persons employed (above and below ground) ... | 5·83 | 4·98 | 4·40 | 5·53 | 4·46 | 4·33 | 4·02 | 3·96 | 3·35 | 3·27 | 3·22 | 2·59 | 2·47 | 2·41 | 2·38 | 2·19 | 1·85 | |
| 5. Number of persons employed for each 100,000 tons of quartz crushed ... | 1,180 | 1,040 | 983 | 882 | 876 | 841 | 803 | 765 | 713 | 758 | 766 | 736 | 787 | 789 | 799 | 803 | 792 | |
| 6. Number of persons killed for each 100,000 tons of quartz crushed ... | 6·90 | 5·18 | 4·32 | 4·88 | 3·91 | 3·65 | 3·23 | 3·03 | 2·39 | 2·11 | 2·47 | 1·99 | 2·05 | 1·99 | 2·00 | 1·86 | 1·71 | |
| 7. Number of persons employed for each £100,000 worth of gold obtained ... | 680 | 604 | 602 | 589 | 616 | 601 | 555 | 549 | 535 | 560 | 573 | 511 | 561 | 548 | 570 | 557 | 535 | |
| 8. Number of persons killed for each £100,000 worth of gold obtained ... | 3·97 | 3·01 | 2·65 | 3·26 | 2·75 | 2·60 | 2·23 | 2·17 | 1·79 | 1·85 | 1·84 | 1·46 | 1·46 | 1·38 | 1·43 | 1·29 | 1·16 | |
| 9. Average value (in shillings) of quartz (gold obtained per ton crushed) ... | 34·68 | 31·43 | 32·67 | 29·94 | 28·42 | 27·98 | 28·95 | 27·90 | 26·65 | 26·32 | 26·71 | 27·15 | 28·02 | 28·70 | 28·05 | 28·83 | 29·58 | |

(a) Represents the average value of gold obtained from current ore crushed only, and does not include value of gold obtained from retreatment of old dumps as in previous years.

# LIST OF MI ARY TO DECEMBER 1922.

Table 12.

| NAME | . of | REMARKS |
|---|---|---|
| Bhaktarhalli ... ... | ... | For Chromite ; 30 years from 1st July 1922. |
| Chokkanhalli ... ... | ... | do. do. |
| Jambur ... ... | ... | do. do |
| Vadesamudram ... ... | ... | Mica ; 10 years from date of issue. |
| Nundydroog, Nundydroog West | ... | Gold ; up to 22nd March 1940. |
| Northern portion of Nundydroog | ... | do. |

| NAME | | Date of Assignment | REMARKS |
|---|---|---|---|
| Champion Reef ... .. | India, | 20th February 1922. | |
| Champion Reef Western .. | ... | do. | |

| NAME | | REMARKS |
|---|---|---|
| Nundydroog ... ... | | |
| Nundydroog Western ... | | |
| Tank Block Residue ... | | |

# LIST OF MINING PROPERTIES LEASED, ASSIGNED OR ABANDONED IN THE STATE OF MYSORE FROM JANUARY TO DECEMBER 1922.

Table 12.

## A.—Leased.

| NAME OF PROPERTY | SITUATION | | Name of Lessee | Date of Grant | Registered No. of Lease | REMARKS |
|---|---|---|---|---|---|---|
| | Taluk | District | | | | |
| Bhaktarhalli | Channarayapatna. | Hassan | Messrs. V. Manickavelu Mudaliar and Son | 1st July 1922 | 158 | For Chromite ; 30 years from 1st July 1922. |
| Chokkanhalli | do | do | do do | do | 159 | do. do. |
| Jambur | do | do | do do | do | 160 | do. do |
| Vadesamudram | Seringapatam | Mysore | Mr. A. Pitchaiya Naidu | 20th November 1922 | 161 | Mica ; 10 years from date of issue. |
| Nundydroog, Nundydroog Western and Tank Block residue consolidated. | Bowringpet | Kolar | The Nundydroog Mines, Ld. | 9th do | 162 | Gold ; up to 22nd March 1940. |
| Northern portion of Nundydroog Western Block | do | do | The Balaghat Gold Mines, Ld. | do | 163 | do. |

## B.—Assigned.

| NAME OF PROPERTY | SITUATION | | Registered No. of Lease | Name of Assignor | Name of Assignee | Date of Assignment | REMARKS |
|---|---|---|---|---|---|---|---|
| | Taluk | District | | | | | |
| Cnampion Reef | Bowringpet | Kolar | 121 | The Champion Reef Gold Mining Co., of India, Ld., and its Liquidator. | The Champion Reef Gold Mines of India, Ld. | 20th February 1922. | |
| Champion Reef Western | do | do | 136 | do do | do do | do. | |

## C.—Abandoned.

| NAME OF PROPERTY | SITUATION | | Registered No. of Lease | Name of Lessee | Date of Abandonment | REMARKS |
|---|---|---|---|---|---|---|
| | Taluk | District | | | | |
| Nundydroog | Bowringpet | Kolar | 131 | The Nundydroog Gold Mining Co. | 9th November 1922. | |
| Nundydroog Western | ,, | ,, | 135 | do do | do. | |
| Tank Block Residue | ,, | ,, | 143 | do do | do. | |

# RECORD OF FATAL AND SERIOUS ACCIDENTS.

## [MINING.]

# RECORD OF FATAL

## AT MINES WORKING IN THE STATE

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|
| Date of Accident | Registered Number of Accident | Name and Situation of Mine | Time of Accident (counting hours from midnight) | Number of hours worked before Accident | Names and Number of Persons killed (*All males unless otherwise stated*) | Names and Number of Persons injured (*All males unless otherwise stated*) | Reputed Age |
| 3rd January ... | 1 | The Mysore Gold Mine, Bowringpet Taluk, Kolar District. | 21-15 | 6 | 1 T. Perumal ... | ... | 25 |
| 5th January ... | 5 | Do ... | 10 | 3 | ... | 1 Silvamuthu ... | 18 |
| 5th January ... | 3 | Do ... | 14-30 | 7 | ... | 1 T. Iyalu ... | 30 |
| 9th January ... | 4 | Do ... | 11 | 4 | ... | 1 M. Duraiswami | 28 |
| 18th January ... | 7 | Do ... | 8-25 | ... | ... | 1 C. Muniswami... | 38 |
| 25th January ... | 15 | Do ... | 7 | 8 | ... | 1 Chinnaboyee ... | 38 |
| 17th February ... | 21 | Do ... | 11-30 | 4½ | ... | 1 Muniswami ... | 11 |
| 2nd March ... | 25 | Do ... | 10 | 3 | ... | 1 M. Hanumanthu | 35 |
| 6th March ... | 27 | Do ... | 7 | 8 | ... | 1 S. Kuppan ... | 38 |
| 24th March ... | 37 | Do ... | 12-30 | 7 | ... | 1 V. Parasuraman | 16 |
| 24th March ... | 34 | Do ... | 19-20 | 5 | 1 M. Murugan ... | ... | 35 |
| 25th April ... | 44 | Do ... | 9 | 2 | 1 Varadan ... | ... | 48 |

# AND SERIOUS ACCIDENTS

## OF MYSORE DURING THE YEAR 1922.

Table 13

| 9 | 10 | 11 | 12 | 13 |
|---|---|---|---|---|
| Occupation | Place of Accident | Class of Accident in terms of Table 7 | Cause of Accident | Nature of injury |
| Bell boy ... | In the skip road below the 39th level, Rowse's Auxiliary Shaft. | XIX | The descending skip caught and crushed him against a dividing timber. | Severe internal injuries, body crushed. |
| Black rock cooly. | Drive, 40th level N. of No. 1, winze, Ribblesdale's Section. | XIX | While clearing the debris, a casuarina pole slipped and fell on his arm. | Simple fracture of right radius. |
| Blaster (M. 7,600 —B. 5,420). | No. 25 stope below the 33rd level N., McTaggart's Auxiliary Shaft. | XIII | Drilled into a socket containing a small quantity of an unexploded charge of explosives. | Wound of forehead, bone chipped; right eye destroyed. Loss of front upper tooth and wounds of right leg. |
| Electric fitter ... | Crosscut W., 45th level, Edgar's Shaft. | XIX | While guiding a coil of cable, it slanted and fell on his thigh. | Simple fracture of left thigh. |
| Head mestri (M. 7,284—B. 5,168). | Skip engine (under slung cage), Edgar's Shaft (surface). | IV | Overwind ... ... | Fracture of spine and shock. |
| Stuff cooly ... | No. 2 drive S., 55th level N., Air Shaft. | XI | A rockburst ... ... | Wound of left leg, tendo achilles cut; bone chipped. |
| Gang cooly ... | Black rock dump, McTaggart's Vertical Shaft (surface). | XXIII | Caused by the explosion of a detonator. | Lacerated wound of left hand; loss of thumb, index and middle fingers and wound of right hand. |
| Timber mestri (M. 1,738). | Drive, 2,520 ft. level S., Tennants' Shaft. | I | While barring down loose, a stone fell on his leg. | Simple fracture of both bones of right leg. |
| Blaster (M. 8,527 —B. 6,169). | Drive, 53rd level S., Rowse's Auxiliary Shaft. | XIII | While taking down loose rock after blasting, he probably inserted the bar into the bottom of an old hole which still contained a small amount of explosives. | Penetrating wound of left lung, wound of upper arm containing black rock, numerous small wounds on body. |
| Bandy driver ... | Tram road, Dump Retreatment Plant (surface). | XXII | The bandy, in which he was riding against orders, tipped and broke his arm. | Simple fracture of left humerus. |
| Timber mestri (M. 8,542—B. 6,182). | Skip road, 25 feet below the 53rd level, McTaggart's Main Winze. | X | He was struck by a piece of timber knocked out by a derailed skip. | Right foot crushed; foot and leg amputated (gas gangrene). Died in hospital on 29th March. |
| Hand jumper cooly | No. 14 stope below the 2,240 ft. level N., Tennant's Shaft. | III | While working in the stope, some quartz fell upon him. | Compound fracture of left ulna, muscles cut and wounds of forehead, right upper arm, index and middle fingers and both legs. Died in hospital on 29th April. |

# RECORD OF FATAL

## AT MINES WORKING IN THE STATE

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|
| Date of Accident | Registered Number of Accident | Name and Situation of Mine | Time of Accident (counting hours from midnight) | Number of hours worked before Accident | Names and Number of Persons killed (*All males unless otherwise stated*) | Names and Number of Persons injured (*All males unless otherwise stated*) | Reputed Age |
| 28th April ... | 47 | The Mysore Gold Mine, Bowringpet Taluk, Kolar District —(*contd.*) | 10 | 3 | ... | 1 T. Chinnapian... | 35 |
| 1st May ... | 48 | Do ... | 10-23 | 3 | 5 T. Muniswami... | ... | 50 |
| | | | | | Pencilgadu ... | ... | 30 |
| | | | | | A. Maury ... | ... | 30 |
| | | | | | P. Gangan ... | ... | 19 |
| | | | | | and | | |
| | | | | | C. Perumal ... | ... | 42 |
| | | | | | ... | 2 Muthuswami ... | 26 |
| | | | | | | and | |
| | | | | | ... | Manickam ... | 23 |
| 10th May ... | 52 | Do ... | 4 | 3 | ... | 1 V. Govindan ... | 28 |
| 16th May .. | 56 | Do ... | 8 | 1 | ... | 1 Irchan ... | 26 |
| 10th June ... | 65 | Do ... | 10 | 3 | 1 B. Murugan ... | ... | 20 |

# AND SERIOUS ACCIDENTS

## OF MYSORE DURING THE YEAR 1922—*continued.*

**Table 13**—*continued.*

| 9 | 10 | 11 | 12 | 13 |
|---|---|---|---|---|
| Occupation | Place of Accident | Class of Accident in terms of Table 7 | Cause of Accident | Nature of Injury |
| Black rock cooly | Drive, 43rd level N. of No. 1 winze, Ribblesdale's Section. | III | While working in the drive, a small shale split off and fell upon his arm. | Compound fracture of left upper arm. |
| Stuff cooly ... | Drive, 33rd level N. from crosscut E., Edgar's Shaft. | XI | A very heavy rockburst .. | Multiple injuries to head and body; asphyxiation.<br>Body recovered on 9th May. |
| Timber cooly ... | Do ... | Do | Do ... ... | Do<br>Body recovered on 9th May. |
| Stuff mestri (M. 8,487). | Do ... | Do | Do ... ... | Do<br>Body recovered on 17th May. |
| Stuff cooly ... | Do ... | Do | Do ... ... | Do<br>Body recovered on 18th May. |
| Unloading mestri, (M. 900). | Do ... | Do | Do ... ... | Compound depressed fracture of skull, fracture of both bones of left wrist and wounds of scalp and left hand. Died in hospital on 6tb May. |
| Mestri (M. 10,308) | Do ... | Do | Do ... ... | Wound of left elbow, leg, ankle, right knee and fracture of os-innominatum. |
| Tea boy ... | Do ... | Do | Do ... ... | Injury to spine; wound of left calf, right great and 2nd toes and contused abrasion of left elbow. |
| Stuff cooly ... | Sink, 147 feet below the 53rd level, McTaggart's Main Winze. | Do | A rockburst ... ... | Extensive lacerated wound of left elbow, muscles cut. Compound fracture of left radius; joint opened. |
| Hand jumper mestri (M. 10,898). | No. 3 stope below the 42nd level S. of No. 1 winze, Ribblesdale's Section. | III | While working in the stope, some loose quartz fell upon him. | Extensive lacerated wound of right leg; muscles cut. Wounds of left leg and right wrist. |
| Unloading cooly | Drive, 2,520 ft. level N., Ribblesdale's Shaft. | XI | He was struck by a piece of timber knocked out by a slight rockburst. | Extensive compound comminuted fracture of skull; brain protruding. Died in hospital the same day. |

# RECORD OF FATAL

## AT MINES WORKING IN THE STATE

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|
| Date of Accident | Registered Number of Accident | Name and Situation of Mine | Time of Accident (counting hours from midnight) | Number of hours worked before Accident | Names and Number of Persons killed (*All males unless otherwise stated*) | Names and Number of Persons injured (*All males unless otherwise stated*) | Reputed Age |
| 10th June ... | 66 | The Mysore Gold Mine, Bowringpet Taluk, Kolar District—(*contd.*) | 11 | 4 | ... | 1 Perumal ... | 28 |
| 16th June ... | 69 | Do ... | 9 | 2 | ... | 1 T. Elias ... | 35 |
| 16th June ... | 70 | Do ... | 13 | 6 | ... | 1 L. Bangaru ... | 25 |
| 19th June ... | 77 | Do ... | 7 | 8 | ... | 1 A. Muthu ... | 30 |
| 8th July ... | 82 | Do ... | 18-45 | 7 | ... | 1 V. Vembuly ... | 35 |
| 12th July ... | 85 | Do ... | 14-20 | 7½ | ... | 1 Chinnappa ... | 36 |
| 13th July ... | 86 | Do ... | 10-35 | 3 | ... | 1 Hyder ... | 50 |
| 7th August ... | 96 | Do ... | 9-30 | 2 | ... | 1 V. Ramalingam... | 21 |
| 23rd August ... | 104 | Do ... | 10 | 3 | 1 C. Narayanan ... | ... | 32 |
| | | | | | ... | Kunny ... | 38 |
| 1st September ... | 111 | Do ... | 14 | 7 | ... | 1 V. Perumal ... | 45 |

# AND SERIOUS ACCIDENTS

## OF MYSORE DURING THE YEAR 1922—*continued.* Table 13—*continued.*

| 9 | 10 | 11 | 12 | 13 |
|---|---|---|---|---|
| Occupation | Place of Accident | Class of Accident in terms of Table 7 | Cause of Accident | Nature of Injury |
| Hand jumper cooly | No. 1 stope above the 47th level S. of main winze, Ribblesdale's Sub-Section. | XI | A rockburst ... ... | Wound of right leg, tendo achilles completely cut. |
| Machine mestri (M. 3,472). | Drive, 49th level S., (from No. 2 winze below 48th level) Ribblesdale's Auxiliary Shaft. | XIX | While taking down loose rock, a slab from the hanging wall fell upon his leg. | "Potts" fracture of right ankle, extensive lacerated wound of leg. |
| Skip road cooly... | Skip road between the 34th and 35th levels, Gilbert's Shaft. | VIII | While cleaning the skip road, he slipped and fell 50 feet down the shaft. | Simple fracture of left thigh; lacerated wounds of scalp and face. |
| Stuff cooly ... | Sink, 150 feet below the 53rd level, McTaggart's Main Winze. | XI | A rockburst ... ... | Lacerated wound of left foot and leg. |
| Stuff mestri (M. 8,668—B. 6,285) | Ladderway, No. 1 winze below the 44th level S., McTaggart's Vertical Shaft. | XV | While climbing up the winze, he slipped from the ladder and fell for ten feet. | Simple fracture of right femur. |
| Stuff mestri (M. 9,670). | Intermediate drive S. above 55th level N., No. 1 Incline. | XI | While clearing away a pile of broken rock in the drive, some stones from the hanging wall dislodged by a rockburst fell upon him. | Compound fracture of both bones of right leg. |
| Hand jumper cooly | Stope below 43rd level N. of No. 1 winze, Ribblesdale's Sub-Section. | XI | A rockburst ... ... | Wound of forehead, bone chipped, lacerated wound of left forearm and contused abrasion of right knee. |
| Stuff cooly ... | No. 1 winze below the 44th level N., McTaggart's Vertical Shaft. | XIX | While cleaning away broken rock in the sink, a sharp stone fell from the pile upon his foot. | Lacerated wound of left leg, tendo achilles cut and fracture of oscalcis. |
| Machine mestri (M. 5,818—B 3,830). | No. 3 stope below the 45th level N. of Main Winze, Ribblesdale's Sub-Section. | XIII | Through intersecting a misfired charge of explosives. | Severe wounds all over body, left leg broken. |
| Machine mestri (M. 11,411—B. 7,742). | Do ... | Do | Do ... ... | Wounds and peppered wounds all over the body; wounds of both eyes (blind—right eye only). |
| Stuff cooly ... | Drive, 2,885 ft. level S., McTaggart's Incline Shaft. | XVII | While tramming, his wrist was caught between the body of the bandy and the side of the level. | Colles fracture of left wrist. |

# RECORD OF FATAL

## AT MINES WORKING IN THE STATE

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|
| Date of Accident | Registered Number of Accident | Name and Situation of Mine | Time of Accident (counting hours from midnight) | Number of hours worked before Accident | Names and Number of Persons killed (*All males unless otherwise stated*) | Names and Number of Persons injured (*All males unless otherwise stated*) | Reputed Age |
| 6th September... | 110 | The Mysore Gold Mine, Bowringpet Taluk, Kolar District —(*contd.*) | 13 | 6 | 1 K. Beeraga ... | ... | 25 |
| | | | ... | .. | ... | 1 K. Venkatappa | 26 |
| 11th September... | 112 | Do ... | 11 | 4 | ... | 1 Chinnadu ... | 25 |
| 21st September... | 123 | Do ... | 9-45 | 3 | ... | 1 P. Kuppan ... | 16 |
| 30th September... | 131 | Do ... | 10 | 3 | ... | 1 T. Vellay ... | 45 |
| 2nd October ... | 134 | Do ... | 9 | 2 | ... | 1 Gungappa ... | 48 |
| 5th October ... | 135 | Do ... | 11-30 | 4 | ... | 1 Nackadu ... | 28 |
| 12th October ... | 137 | Do ... | 14 | 7 | ... | 1 P. Kundan ... | 38 |
| 18th October ... | 139 | Do ... | 17-30 | 2 | ... | 1 Muniswami ... | 30 |
| 19th October ... | 140 | Do ... | 13 | 6 | ... | 1 Muniswami .. | 30 |

| 9<br>Occupation | 10<br>Place of Accident | 11<br>Class of Accident in terms of Table 7 | 12<br>Cause of Accident | 13<br>Nature of Injury |
|---|---|---|---|---|
| Hand jumper cooly. | No. 4 stope below the 790 ft. level S. of Rowse's Shaft. | I | A fall of loose rock from the hanging wall. | Contusion of abdomen with ruptured bladder. Died in hospital on 14th September. |
| Do ... | Do ... | Do | Do ... ... | Wound of left knee; joint opened. |
| Underground sweeper. | Ladderway above the 1,350 ft. level, Tennant's Shaft. | X | He was struck by a falling stone while climbing up the ladder way. | Simple fracture of both bones of left leg. |
| Sample boy ... | Haulage tram road, Cyanide Works, (surface). | XXII | The body of an empty wagon overturned while he was riding on it, so that he was thrown to the ground and struck by it. | Extensive lacerated wounds of face (mouth badly torn); contusion of side of neck. |
| Stuff mestri (M. 8,528--B. 6,170) | Intermediate drive south above the 46th level, McTaggart's Vertical Shaft. | XIX | While taking down loose rock with a bar, a stone fell upon his knee. | Wound of right knee; joint opened. |
| Black rock cooly | No. 10 stope above the 40th level S. of No. 1 winze, Ribblesdale's Sub-Section. | XV | While building a wall in a stope, a stone fell upon his knee from above. | Wound of right knee; joint opened. |
| Hand jumper cooly. | No. 2 stope above the 37th level S., Tennant's Main Winze. | XI | A burst of quartz. ... ... | Extensive lacerated wound with compound depressed fracture of skull; comminuted fracture of right facial bones. |
| Hand jumper mestri (M. 7,718—B. 5,517). | No. 2 stope above the 39th level N., McTaggart's Auxiliary Shaft. | III | While taking down loose quartz with a bar, a small piece fell upon his knee. | Wound of right knee; joint opened. |
| Blaster, (M. 10,192—B. 7,081). | No. 6 stope below the 26th level N., McTaggart's Incline Shaft. | XIV | After igniting the fuses, the charges exploded before he reached a place of safety. | Extensive lacerated wound of right hand, compound fracture of metacarpal bone of little finger and lacerated wound of upper arm. Compound fracture of skull and peppered wounds all over the body. |
| Timber cooly ... | Below the 53rd level, Ribblesdale's No. 2 Auxiliary Shaft. | XIX | He fell and cut his leg against a sharp piece of rock when jumping upon a stage from the ladder. | Wound of left leg; tendon cut. |

# RECORD OF FATAL

## AT MINES WORKING IN THE STATE

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|
| Date of Accident | Registered Number of Accident | Name and Situation of Mine | Time of Accident (counting hours from midnight) | Number of hours worked before Accident | Names and Number of Persons killed (*All males unless otherwise stated*) | Names and Number of Persons injured (*All males unless otherwise stated*) | Reputed Age |
| 26th October ... | 142 | The Mysore Gold Mine, Bowringpet Taluk, Kolar District—(*contd.*) | 9-30 | 2 | ... | 3 Armugam ... | 38 |
| | | | | | ... | Chinnappa ... | 35 |
| | | | | | | and | |
| | | | | | ... | Hanumanthu ... | 40 |
| 29th October ... | 158 | Do ... | 6 | 7 | ... | 1 Kandan ... | 20 |
| 30th October ... | 145 | Do ... | 10 | 3 | ... | 1 Rangaswami ... | 30 |
| 13th November... | 157 | Do ... | 7 | 8 | ... | 1 Mangalee ... | 45 |
| 4th December ... | 163 | Do ... | 8 | ... | ... | 1 K. Kutty ... | 28 |
| 5th December ... | 166 | Do ... | 9-40 | 3 | 1 Kundaswami ... | ... | 30 |
| 16th December ... | 180 | Do (*concld.*) | 10 | 3 | ... | 1 Venkatappa ... | 40 |
| 4th January ... | 2 | The Champion Reef Gold Mine, Bowringpet Taluk, Kolar District. | 11 | 3 | 1 Padavattan ... | ... | 35 |
| 19th January ... | 8 | Do ... | 11-15 | 3¼ | 1 B. Ramaswami... | ... | 48 |
| 26th January ... | 13 | Do ... | 4 | 4 | .. | 1 P. Veeran ... | 50 |
| 30th January ... | 14 | Do ... | 15-30 | 7½ | 1 C. Chamundy ... | ... | 28 |

| 9 | 10 | 11 | 12 | 13 |
|---|---|---|---|---|
| Occupation | Place of Accident | Class of Accident in terms of Table 7 | Cause of Accident | Nature of Injury |
| Black rock mestri, (M. 10,235). | No. 1 stope above the 1,350 ft. level, Tennant's Shaft. | XI | A rockburst ... .. | Wound of left index finger, right leg and foot, and wound of left knee; joint opened. |
| Stuff cooly ... | Do ... | Do | Do ... ... | Wound of back, muscles cut; wound of right knee, joint opened, and small wounds all over the body. |
| Hand jumper mestri (M. 5,908—B. 3,881) | Do ... | Do | Do ... ... | Left hand crushed, (amputated). |
| Stuff cooly ... | 100 ft. below 54th level, Ribblesdale's No. 2 Auxiliary Shaft. | VIII | While climbing from the sink, he slipped and fell 20 feet. | Contusion of back. |
| Timber mestri (M. 10,327). | Drive, 2,790 ft. level N., Tennant's Shaft. | XI | A burst of quartz ... ... | Wound of left knee; joint opened. |
| Stuff mestri (M. 1,348). | Drive, 2,440 ft. level S., Tennant's Shaft. | XIX | While using a casuarina pole to lever a derailed bandy upon the truck, the end of the pole struck his chest. | Contusion of chest wall. |
| Hand jumper cooly. | Drive N., 2,000 ft. level, Tennant's Shaft | II | While carrying jumpers along the drive, a piece of rock fell upon his hand crushing his fingers against the jumpers. | Right little and ring fingers crushed, (amputated). |
| Driver ... | Slimes Plant (surface) | XX | While attending to the grease cup of a pulley, he was somehow caught and crushed by the belt. | Fracture of right four or five ribs and sternum; wound of chin. Died in hospital the same day. |
| Lander ... | McTaggart's Vertical Shaft (surface). | XXIII | A plank fell upon his toe ... | Tetanus. |
| Hand jumper cooly. | Stope below the 42nd level N. of No. 1 winze S., Carmichael's Shaft. | XIX | While drilling, the head of the hammer glanced from the edge of the jumper causing the handle to strike him in the groin. | Contusion of abdomen. Died in hospital on 5th January. |
| Cage road mestri (M. 1,458—B. 3,937). | At a depth of 55 feet below surface, Tennant's Vertical Shaft. | VIII | While working in the shaft, his head struck against a wallplate and he fell down the cage road. | Deep cut on the head; both arms and legs broken. |
| Stuff cooly ... | Drive, 46th level S., Carmichael's Shaft. | XI | A rockbrust ... ... | Extensive lacerated wound of right hand. Compound fracture of last four metacarpals. |
| Cotterman ... | No. 1 winze below the 19th level S., East Reef, Tennant's Shaft | XIII | Through drilling into an old hole containing some blasting gelatine. | Wounds on head, both sides and thighs; both legs broken. |

# RECORD OF FATAL

## AT MINES WORKING IN THE STATE

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|
| Date of Accident | Registered Number of Accident | Name and Situation of Mine | Time of Accident (counting hours from midnight) | Number of hours worked before Accident | Names and Number of Persons killed (*All males unless otherwise stated*) | Names and Number of Persons injured (*All males unless otherwise stated*) | Reputed Age |
| 1st February ... | 16 | The Champion Reef Gold Mine, Bowringpet Taluk, Kolar District (*contd.*) | 8-30 | 1 | ... | 1 V. Muniswami ... | 25 |
| 11th February ... | 32 | Do ... | 14-30 | 6½ | ... | 1 Raghavan ... | 35 |
| 24th March ... | 33 | Do ... | 12-30 | 4½ | ... | 1 Chinnappen ... | 26 |
| 13th April ... | 43 | Do ... | 22-45 | 7¾ | ... | 1 P. Armugam ... | 46 |
| 15th April ... | 182 | Do ... | 13 | 5 | ... | 1 M. Chinnapian... | 26 |
| 5th May ... | 51 | Do ... | 22 | 6 | ... | 1 C. Thulukanam | 50 |
| 10th May ... | 53 | Do ... | 11 | 3 | ... | 1 Vadamalay ... | 35 |
| 13th May ... | 58 | Do ... | 11-30 | 4½ | ... | 1 Payany ... | 40 |
| 21st May ... | 60 | Do ... | 8-45 | 1 | 1 Chitray ... | ... | 30 |
| | | | | | ... | 1 N. Muniswami... | 30 |
| 31st May ... | 63 | Do ... | 3 | 2 | 1 Syed Mustan ... | ... | 30 |
| 11th June ... | 67 | Do ... | 13-30 | 5½ | 1 S. Muniswami ... | ... | 30 |

# AND SERIOUS ACCIDENTS

## OF MYSORE DURING THE YEAR 1922—*continued.* Table 13—*continued.*

| 9 | 10 | 11 | 12 | 13 |
|---|---|---|---|---|
| Occupation | Place of Accident | Class of Accident in terms of Table 7 | Cause of Accident | Nature of Injury |
| Stuff cooly ... | Drive, 300 ft. level S. from crosscut W., Carmichael's Shaft. | XI | A fall of rock probably loosened by a heavy rockburst. | Right leg crushed (foot amputated). |
| Skip road cooly ... | About 50 feet below surface, Tennant's Vertical Shaft. | VI | While riding up on the top of the cage, his heel was caught between the cage and a dividing. | Wound over tendo achilles. |
| Hand jumper cooly. | Rill stope above 45th level S. on East Reef, Garland's Shaft. | XI | A rockburst ... ... | Extensive lacerated wound of right shoulder, muscles cut; wound of left arm, muscles cut; lacerated wound of knee, joint opened. |
| Shift cooly ... | Sands plant (surface). | XXIII | While levelling sand in a vat, he fell on a pipe. | Rupture of penile portion of urethra. |
| Stuff cooly ... | Drive, 46th level S., Carmichael's Shaft. | XVII | While pushing a bandy, his hand was caught between the bandy and part of an ore chute. | Compound fracture of left ring finger. |
| Stuff mestri (M. 9,502). | Skiproad, 800 ft. level, Rowe's Shaft. | VI | While riding up in the skip, his fingers were caught between a chain (connecting the bow with the skip) and a back runner. | Wound of scalp and compound fracture of left 2nd, 3rd and 4th fingers. |
| Timber mestri (M. 6,552-B. 4,580). | Stope above the 54th level N. of No. 2 rise S., Glen Shaft. | XV | While fixing a ladder in the stope, he was struck by a small stone. | Wound of forehead slightly depressed fracture of skull. |
| Carpenter cooly... | Carpenters' shop (surface). | XX | While pushing a plank towards the planing machine, it suddenly jumped back and his hand came in contact with the blades. | Left hand crushed. |
| Assistant mason... | Crosscut, 40th level, Carmichael's Shaft. | XI | A rockburst ... ... | Suspected fracture of base of skull; deep wound of right scapula; wounds of arm and both legs. Died in hospital on 15th June. |
| Mason ... | Do ... | Do | Do ... ... | Compound fracture of both bones of right leg and wounds of left foot. |
| Blaster (M. 9,532-B. 6,774). | Drive N. from crosscut E., 28th level S., Tennant's Shaft. | XIV | While igniting the fuses of three charges, the first charge exploded before he had left the face of the drive. | Body mutilated. |
| Stuff cooly ... | Drive, 49th level above the No. 2A winze S., Carmichael's Shaft. | XI | A series of rockbursts caused the collapse of the stull forming the bottom of the level over this winze. | Multiple injuries to head, body and limbs. |

# RECORD OF FATAL

## AT MINES WORKING IN THE STATE

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|
| Date of Accident | Registered Number of Accident | Name and Situation of Mine | Time of Accident (counting hours from midnight) | Number of hours worked before Accident | Names and Number of Persons killed (*All males unless otherwise stated*) | Names and Number of Persons injured (*All males unless otherwise stated*) | Reputed Age |
| 11th June—(*contd.*) | 67 | The Champion Reef Gold Mine, Bowringpet Taluk, Kolar District—(*contd.*) | 13-30 | 5½ | ... | 1 Vadee ... | 24 |
| 14th June ... | 68 | Do ... | 9-30 | 3½ | ... | 1 Velu ... | 35 |
| 24th June ... | 78 | Do ... | 14-30 | 6½ | ... | 1 Periaswami ... | 28 |
| 26th June ... | 79 | Do ... | 9 | 2 | ... | 1 Veeraragu ... | 25 |
| 5th July ... | 84 | Do ... | 12-10 | $4\frac{1}{10}$ | ... | 1 Chinnapian ... | 32 |
| 19th July ... | 88 | Do ... | 18-15 | 2¼ | ... | 1 Chitray ... | 45 |
| 7th August ... | 99 | Do ... | 11 | 4 | ... | 1 S. Ponnuswami. | 55 |
| 11th August ... | 105 | Do ... | 9 | 2 | ... | 1 G. Murugan ... | 21 |
| 18th August ... | 101 | Do ... | 5 | 6 | 1 Poongan ... | ... | 25 |
| 26th August ... | 109 | Do ... | 20 | 4 | .. | 1 A. Masilamany. | 26 |
| 15th September... | 114 | Do ... | 8-30 | 3½ | ... | 1 A. Govindan ... | 24 |
| 15th September... | 116 | Do ... | 19-50 | $3\frac{5}{6}$ | ... | 1 Soosay ... | 25 |

# AND SERIOUS ACCIDENTS

## OF MYSORE DURING THE YEAR 1922—*continued.* Table 13—*continued.*

| 9 | 10 | 11 | 12 | 13 |
|---|---|---|---|---|
| Occupation | Place of Accident | Class of Accident in terms of Table 7 | Cause of Accident | Nature of Injury |
| Stuff cooly ... | Drive, 49th level above the No. 2A winze S; Carmichael's Shaft. | XI | A series of rockbursts caused the collapse of the stull forming the bottom of the level over this winze. | Lacerated wound with compound fracture of lower jaw, compound fracture of base of skull, lacerated wound of left thigh and wounds of knee. |
| Assistant blaster... | End N. on East Reef, 28th level, Tennant's Shaft. | II | While clearing away broken rock in the end, some "loose" fell upon him from the back of the drive. | Compound fracture of skull and nose; dislocation of hip. |
| Timber cooly ... | Winze below the 43rd level, Carmichael's Secondary Shaft. | XI | A rockburst ... ... | Wound of right knee; joint opened. |
| Cotterman ... | Engine chamber, 39th level, Carmichael's Secondary Shaft. | XIX | While helping to put up the bar, a piece of loose rock fell upon his knee. | Lacerated wound of left knee; joint opened. |
| Hand jumper cooly. | Stope below 25th level N., Tennant's Shaft. | XIX | While clearing stuff from pile, a stone rolled down upon his hand. | Compound fracture of left index and middle fingers. |
| Hand jumper mestri (M. 5,240—B. 3,377). | Stope below the 24th level S., Tennant's Shaft. | XIX | While clearing quartz from the stope, a stone fell upon his knee. | Wound of left knee; joint opened. |
| Mason ... | Kitchen behind married quarters (surface). | XXIII | While taking down a kitchen chimney, he fell with it to the ground. | Impacted comminuted fracture of neck of left femur. |
| Cleaner ... | No. 1 Mill (surface)... | XX | While cleaning oil from a bearing, the point of a cam struck his knee. | Wound of right knee, joint opened. |
| Timber cooly ... | Cage road above the 59th level, Glen Scondary Shaft. | VI | While riding up in the cage, his head struck against a casing plank and he fell down the shaft. | Head completely smashed, right leg broken at ankle and deep cut on left knee. |
| Assistant blaster. | Drive, 55th level S., Garland's Shaft. | XIX | While watching the blaster taking down loose, a chip of quartz flew into his eye. | Wound of right eyelid. |
| Assistant blaster. | Drive, 55th S., Garland's Shaft. | XI | A rockburst ... ... | Simple comminuted fracture of right leg, wound of right upper arm; Gonorrhœal urethritis. |
| Black rock cooly. | Skip charging station, 41st level, Carmichael's Secondary Shaft. | XI | A rockburst ... ... | Wound of back, musceles cut; left wrist, extensor tendons cut; multiple wounds all over body. |

# RECORD OF FATAL

## AT MINES WORKING IN THE STATE

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|
| Date of Accident | Registered Number of Accident | Name and Situation of Mine | Time of Accident (counting hours from midnight) | Number of hours worked before Accident | Names and Number of Persons killed (*All males unless otherwise stated*) | Names and Number of Persons injured (*All males unless otherwise stated*) | Reputed Age |
| 16th September... | 117 | The Champion Reef Gold Mine, Bowringpet Taluk, Kolar District—(*contd.*) | 18-30 | $2\frac{1}{2}$ | ... | 1 B. Anthony ... | 38 |
| 18th September... | 119 | Do ... | 6-5 | $5\frac{1}{12}$ | 7 A. Gungan ... | (1) ... | 30 |
| | | | | | C. Perumal ... | ... | 40 |
| | | | | | Gungan ... | ... | 40 |
| | | | | | Muniswami ... | ... | 21 |
| | | | | | Varadan ... | ... | 32 |
| | | | | | Abdul Khader ... | ... | 25 |
| | | | | | | 1 Abimannan (1) ... | 19 |
| | | | | | and<br>N. Papiah (2) ... | ... | 30 |
| 19th September... | 122 | Do ... | 20-15 | $5\frac{1}{2}$ | 1 Pandara Periavedam. | ... | 50 |

| 9 | 10 | 11 | 12 | 13 |
|---|---|---|---|---|
| Occupation | Place of Accident | Class of Accident in terms of Table 7 | Cause of Accident | Nature of Injury |
| S cooly ... | Winze for airway below the 50th level N., Glen Secondary Shaft. | XV | While trying to get away from some broken quartz running from a stope into the level and from the dust caused by this, he fell into an airway. | Compound fracture of frontal bone and simple fracture of both bones of right leg; contusion of left eye; wounds of left shoulder, thigh and right foot. |
| Stuff cooly ... | (1) Plat and drives N. and S., 55th level, Glen Secondary Shaft | XI | A succession of heavy rockbursts ... | Body decomposed; recovered on 27th October. |
| Do ... | Do ... | Do | Do ... | Body decomposed; recovered on 11th December. |
| Cotterman ... | Do ... | Do | Do ... | Body decomposed; recovered on 10th November. |
| Do ... | Do ... | Do | Do ... | Body decomposed; recovered on 27th September. |
| Stuff miner ... | Do ... | Do | Do ... | Simple fracture of left femur and lower part of leg missing; hæmorrhage and shock. Died in hospital on 19th September. |
| Stuff cooly ... | Do ... | Do | Do ... | Contusion of both legs and wound of right leg, shock. Died in hospital on 20th September. |
| Do ... | Do ... | Do | Do ... | Contused wounds of face, scalp, right foot and leg; extensive lacerated wound of left foot with compound fracture of 1st and 2nd metatarsals. |
| Do ... | (2) Plat, 57th level, Glen Secondary Shaft. | Do | Do ... | Injuries to chest and left hip; deep cut on back. |
| Wheeler ... | Tank for waste hot water from boilers, Tennant's Shaft (surface). | XXIII | While walking to a water tap, he slipped and fell into the tank alongside. | Extensive scalds, shock. Died in hospital on 21st September. |

# RECORD OF FATAL

## AT MINES WORKING IN THE STATE

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|
| Date of Accident | Registered Number of Accident | Name and Situation of Mine | Time of Accident (counting hours from midnight) | Number of hours worked before Accident | Names and Number of Persons killed (*All males unless otherwise stated*) | Names and Number of Persons injured (*All males unless otherwise stated*) | Reputed Age |
| 20th September... | 124 | The Champion Reef Gold Mine, Bowringpet Taluk, Kolar District. | 8-35 | $1\frac{7}{12}$ | 11 D. Chowry ... | ... | 25 |
| | | | | | A. Pavey ... | ... | 24 |
| | | | | | D. Arokiaswami... | ... | 23 |
| | | | | | Ganapathy ... | ... | 21 |
| | | | | | Chenguni Nair ... | ... | 23 |
| | | | | | Duraiswami ... | ... | 20 |
| | | ... | | | Perumal ... | ... | 48 |
| | | | | | T. Maury ... | ... | 28 |
| | | | | | | 2 G. Muniswami ... | 25 |
| | | | | | | and | (a) |
| | | ... | | | | Venkataraman ... | 22 |
| | | | | | V. Anthony ... | ... | 48 |
| | | | | | T. Arokiaswami... | ... | 22 |
| | | | | | and | | |
| | | | | | Subrayan ... | ... | 48 |

# AND SERIOUS ACCIDENTS

## OF MYSORE DURING THE YEAR 1922—*continued.* Table 13—*continued.*

| 9 | 10 | 11 | 12 | 13 |
|---|---|---|---|---|
| Occupation | Place of Accident | Class of Accident in terms of Table 7 | Cause of Accident | Nature of Injury |
| Timber cooly | (a) Drive, 40th level N., Garland's Shaft. | XI | A rockburst | Wounds on head, face and all over body; left leg smashed. |
| Black rock miner | Do | Do | Do | Wounds of right temple and face; right and left legs smashed. |
| Black rock cooly | Do | Do | Do | Body decomposed, recovered on 28th September. |
| Timber cooly | Do | Do | Do | Body decomposed, recovered on 27th September. |
| Do | Do | Do | Do | Body decomposed, recovered on 27th September. |
| Cotterman | Do | Do | Do | Wounds of head, back and both legs, body recovered on 21st September. |
| Loose mestri, (M. 9,042—B. 6,558) | Do | Do | Do | Body decomposed, recovered on 23rd September. |
| Assistant blaster | Do | Do | Do | Body decomposed, recovered on 23rd September. |
| Timber cooly | Do | Do | Do | Wound of scalp and contused lacerated wound of left knee; joint opened. |
| Do | Do | Do | Do | Compound fracture of lower jaw, lower lip badly damaged; wound of left knee. |
| Stuff cooly | (b) Drive, 41st level N., Garland's Shaft. | Do | Do | Wound of left cheek and chin, injuries on stomach and abdomen and deep cut in groin. |
| Do | Do | Do | Do | Head, left hand and right leg smashed, minor wounds all over body, body recovered on 21st September. |
| Stuff mestri, (M. 9,515). | Do | Do | Do | Deep cut on head and wounds on both legs, body recovered on 21st September. |

# RECORD OF FATAL

## AT MINES WORKING IN THE STATE

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|
| Date of Accident | Registered Number of Accident | Name and Situation of Mine | Time of Accident (counting hours from midnight) | Number of hours worked before Accident | Names and Number of Persons killed (*All males unless otherwise stated*) | Names and Number of Persons injured (*All males unless otherwise stated*) | Reputed Age |
| 22nd September... | 126 | The Champion Reef Gold Mine, Bowringpet Taluk, Kolar District—(*contd.*) | 14-45 | 7¾ | ... | 1 Venkatadu ... | 25 |
| 25th September... | 129 | Do ... | 10 | 2 | ... | 1 Aruldoss ... | 16 |
| 10th October ... | 138 | Do ... | 6-30 | 5 | ... | 1 C. Aundy ... | 29 |
| 20th October ... | 141 | Do ... | 14-30 | 6½ | ... | 1 Chengappa ... | 32 |
| 8th November ... | 151 | Do ... | 11 | 3 | ... | 1 M. Thangavelu ... | 30 |
| 8th November ... | 152 | Do ... | 21-30 | 5 | ... | 1 A. Sabjan ... | 27 |
| 9th November ... | 159 | Do ... | 19 | 3 | ... | 1 Chowry ... | 32 |
| 10th November... | 153 | Do ... | 2 | 2 | ... | 1 K. Chinnaswami | 25 |
| 17th November... | 160 | Do ... | 11 | 3 | ... | 1 V. Perumal ... | 34 |
| 13th December... | 171 | Do ... | 12 | 4 | ... | 1 Armugam ... | 22 |
| 21st December ... | 174 | Do (*concld.*) ... | 12-30 | 4½ | ... | 1 B. Raju ... | 22 |
| 24th January ... | 10 | The Ooregum Gold Mine, Bowringpet Taluk, Kolar District | 13-10 | 6 | ... | 1 G. Muniswami ... | 24 |
| 9th February ... | 19 | Do ... | 2-30 | 3½ | ... | 3 Babanna ... | 26 |
|  |  |  |  |  |  | M. Narayan Nair | 30 |
|  |  |  |  |  |  | and |  |
|  |  |  |  |  |  | Thanigachallam | 45 |

| 9 | 10 | 11 | 12 | 13 |
|---|---|---|---|---|
| Occupation | Place of Accident | Class of Accident in terms of Table 7 | Cause of Accident | Nature of Injury |
| Cooly ... | Accumulated Slimes Dump behind No. 1 Mill (surface). | XXIII | While working at the dump, a heavy block of slime fell upon him owing to under cutting. | Simple fracture of right thigh. |
| Quartz cooly ... | Quartz outcrop on Western Block (surface). | XXIII | While breaking a boulder of quartz to make tube mill pebbles, a chip flew into his eye. | Deep wound of left, eye ; no vision. |
| Hand jumper mestri (M. 9,623). | Stope above the 28th level N., Glen Shaft. | XIX | While taking down loose rock, the bar slipped, so that his arm struck against the wall. | Simple fracture of right ulna. |
| Cotterman ... | Crosscut, 40th level, Gifford Shaft. | II | A piece of loose rock fell upon his knee. | Wound of left leg ; tendo achilles cut. |
| Stuff cooly ... | Drive, 46th level N., Carmichael's Shaft. | XIX | While pushing a bandy away from a chute, a stone fell from the latter upon his leg. | Wound of left leg, tendon cut, bone chipped and ankle joint opened. |
| Stuff cooly ... | Sink below the 66th level, Carmichael's Secondary Shaft. | X | While working in the sink, a stone fell upon him from above. | Wound of left knee ; joint opened. |
| Timber cooly ... | Plat, 41st level, Carmichael's Secondary Shaft. | XIX | While working in the plat, a sharp shale of rock fell on his arm. | Wound of right forearm, muscle cut. |
| Stuff cooly ... | Sink below 66th level, Carmichael's Secondary Shaft. | X | While working in the sink, he was struck by a stone that fell from above. | Wound of right leg ; tendo achilles cut. |
| Mestri (M. 9,597). | Drive, 46th level S., Glen Shaft. | II | A stone fell upon his leg from the back of the drive. | Wound of left leg ; tendo achilles cut. |
| Stuff cooly ... | In 41st level close to pioneer winze below the 40th level, Carmichael's Secondary Shaft. | II | While working in the drive, he was struck by a small piece of rock that fell through the covering planks. | Wound of right knee ; joint opened. |
| Stuff cooly ... | Drive, 59th level N., Carmichael's Shaft. | XIX | While clearing away stuff in the drive a piece of rock split off from the back and fell upon his knee. | Wound of right knee ; joint opend. |
| Timber cooly ... | Plat, 40th level, Bullen's Vertical Shaft. | XIX | While unloading a piece of timber from the cage, the lashing chain slipped and the timber fell on his leg. | Compound fracture of right leg and foot crushed (amputated). |
| Assistant blaster | Cage road above the 56th level, Oakley's No. 2 Vertical Shaft. | VI | The safety catches came into action while the cage was descending, and the occupants were injured by the sudden jerk. | Simple fracture of right thigh. |
| Blaster (B. 1,409) | Do ... | Do | Do ... ... | Simple fracture of both bones of right leg. |
| Blaster (M. 9,900—B. 6,933). | Do ... | Do | Do ... ... | Do |

# RECORD OF FATAL

## AT MINES WORKING IN THE STATE

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|
| Date of Accident | Registered Number of Accident | Name and Situation of Mine | Time of Accident (counting hours from midnight) | Number of hours worked before Accident | Names and Number of Persons killed (*All males unless otherwise stated*) | Names and Number of Persons injured (*All males unless otherwise stated*) | Reputed Age |
| 9th February ... | 20 | The Ooregum Gold Mine, Bowringpet Taluk, Kolar District —(*contd.*) | 7-30 | ½ | ... | 1 V. Ponnan ... | 40 |
| 27th February ... | 24 | Do ... | 8-20 | 1⅓ | ... | 1 Sanjeevi ... | 16 |
| 1st March ... | 23 | Do ... | 9-30 | 2½ | 1 V. Duraiswami ... | ... | 22 |
| 6th March ... | 26 | Do ... | 11-30 | 4½ | ... | 1 V. Durgachallam | 24 |
| 11th March ... | 29 | Do ... | 5-15 | 7 | 1 M. Chinnaswami | ... | 42 |
| | | | | | ... | 2 Nayanadoray ... | 24 |
| | | | | | | and | |
| | | | | | ... | T. Gangan ... | 36 |
| 13th March ... | 31 | Do ... | 10-15 | 3¼ | ... | 1 P. Sabapathy ... | 32 |
| 30th March ... | 36 | Do ... | 12-30 | 5½ | ... | 1 U. Jamal ... | 25 |
| 10th April ... | 39 | Do ... | 10 | 3½ | ... | 1 T. Kuppan ... | 25 |
| 15th April ... | 40 | Do ... | 12-45 | 5¾ | 3 O. Kandooni Nair | ... | 52 |
| | | | | | U. Atchuthan Nair | ... | 34 |
| | | | | | and | | |
| | | | | | U. Narayan Nair | ... | 26 |

# AND SERIOUS ACCIDENTS

## OF MYSORE DURING THE YEAR 1922—*continued.* Table 13—*continued.*

| 9 | 10 | 11 | 12 | 13 |
|---|---|---|---|---|
| Occupation | Place of Accident | Class of Accident in terms of Table 7 | Cause of Accident | Nature of Injury |
| Hand jumper mestri (M. 8,138 —B. 5,850). | No. 17 stope below the 44th level N., Bullen's Shaft. | XI | A rockburst ... ... | Compound depressed fracture of skull and wounds of face. |
| Bellows boy ... | Blacksmith's Shop, Circular Shaft (surface). | XX | While cleaning the drill sharpening machine, the hammer head dropped on his thumb. | Compound fracture of right thumb. |
| Timber cooly ... | No. 20 stope below the 34th level N., Oakley's Shaft. | XV | While passing along the footwall of the drive, above a new stope, the rope which he was holding gave way and he fell down the chute pass a distance of 50 feet. | Compound fracture of occipital bone and wound of right knee. Died in hospital the same day. |
| Stuff cooly ... | Plat, 66th level, Oakley's No. 2 Vertical Shaft. | XIX | Through the breaking of a rope by which a piece of timber was being lowered. | Compound fracture into frontal sinus, wound of right cheek and lacerated wound of scalp. |
| Cotterman ... | Crosscut W., 32nd level, Taylor's Shaft (at point of communication with the Circular Shaft). | XI | A rockburst ... ... | Injury to spine. Died in hospital the same day. |
| Do ... | Do ... | Do | Do ... ... | Compound fracture of left leg, wound of scalp, face and right foot. |
| Do ... | Do ... | Do | Do ... ... | Extensive lacerated wound of right foot. |
| Hand jumper mestri (M. 10,648 --B. 7,293). | No. 10 back stope, 48th level N., Bullen's Shaft. | III | While taking down loose rock, a piece of quartz fell upon his foot. | Right foot crushed; (amputated). |
| Hand jumper cooly. | No. 16 stope below the 44th level N., Bullen's Incline Shaft. | XI | While drilling, he was struck by a small amount of rock shaken down by a heavy rockburst elsewhere. | Compound depressed fracture of skull; wounds of back, left upper arm and leg. |
| Machine cooly .. | About 50 feet below the 64th level, No. 1 Main Winze, (Oakley's Section). | XI | A burst of quartz ... ... | Lacerated wound of right knee; joint opened. |
| Handleman (M. 2,526). | No. 1 winze below the 64th level, N. from No. 3 Main Winze, Oakley's No. 2 Vertical Shaft. | XIII | Drilling into a misfire ... ... | Multiple injuries to head, body and limbs. |
| Cotterman ... | Do ... | Do | Do ... ... | Do |
| Bar cooly ... | Do .. | Do | Do ... ... | Do |

# RECORD OF FATAL

## AT MINES WORKING IN THE STATE

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|
| Date of Accident | Registered Number of Accident | Name and Situation of Mine | Time of Accident (counting hours from midnight) | Number of hours worked before Accident | Names and Number of Persons killed (*All males unless otherwise stated*) | Names and Number of Persons injured (*All males unless otherwise stated*) | Reputed Age |
| 5th May ... | 50 | The Ooregum Gold Mine, Bowringpet Taluk, Kolar District—(*contd.*) | 1-50 | 7 | 1 K. Nanjappa ... | ... | 24 |
| 12th May ... | 54 | Do ... | 11 | 4 | ... | 1 E. Narayanaswami | 35 |
| 30th May ... | 62 | Do ... | 7-30 | 8 | ... | 1 C. Kuttan Nair... | 36 |
| 11th June ... | 76 | Do ... | 9-30 | 2½ | ... | 1 C. Athen Kutty... | 28 |
| 17th June ... | 71 | Do ... | 11-15 | 4¼ | 2 K. Thoyagan ...<br>and<br>A. Periaswami... | ...<br>... | 40<br>25 |
| 23rd June ... | 74 | Do ... | 9-45 | 2¾ | ... | 1 Francis ... | 40 |
| 7th July ... | 81 | Do ... | 12 | 5 | ... | 1 A. Kunju Eddoo | 30 |
| 14th July ... | 87 | Do ... | 16-15 | 2 | ... | 1 K. Ponnuswami | 32 |
| 27th July ... | 90 | Do ... | 8-40 | 1½ | ... | 1 U. Kunjalam ... | 30 |
| 31st July ... | 91 | Do ... | 11-15 | 4¼ | ... | 1 Arokiaswami ... | 22 |

| 9 | 10 | 11 | 12 | 13 |
|---|---|---|---|---|
| Occupation | Place of Accident | Class of Accident in terms of Table 7 | Cause of Accident | Nature of Injury |
| Unloading gang cooly. | Plat, 42nd level, Bullen's Vertical Shaft. | XIX | While helping to remove a piece of timber from the cage, it fell upon his leg. | Lacerated wound with compound comminuted fracture of right thigh bone and knee. Lacerated wound of palm and dislocation of little finger. Died in hospital the same day. |
| Stuff cooly ... | Drive, 62nd level N. from No. 3 winze, Bullen's Incline Shaft. | XI | A rockburst ... ... | Wound of left leg; tendo achilles cut. |
| Blaster's assistant. | Plat, 63rd level, No. 3 winze N., Bullen's Incline Shaft. | II | The fall of a large piece of rock, probably loosened by blasting close by. | Extensive lacerated wound of scalp with compound fracture of skull; punctured wound of left elbow with fracture of ulna. |
| Hand jumper cooly. | Ladderway between the 41st and 42nd levels, Bullen's Shaft. | XV | While climbing up the winze, he slipped from the ladder and fell 10 feet. | Lacerated wound of scalp and contusion of hip. |
| Hand jumper cooly. | No. 4 (a) stope below the 22nd level N., Oakley's Shaft. | XV | A piece of timber fell out from below the level, with its covering of poles and waste rock, into the stope where they were working | Body crushed. |
| Do ... | Do ... | Do | Do ... ... | Simple fracture of both bones of left leg, ankle, right tibia, right thumb and wounds of scalp. Died in hospital on 26th June. |
| Compressor driver | No. 7 compressor, Bullen's Shaft (surface). | XXIII | The ladder on which he was standing slipped and he fell to the ground. | Fracture of base of skull. |
| Hand jumper cooly. | No. 3 stope above the 52nd level N., Bullen's Shaft. | III | While drilling in the stope, some pieces of quartz fell upon him. | Compound fracture of left ankle, tendon cut, wounds of thigh, leg and upper arm. |
| Timber cooly ... | Plat, No. 2 main winze, 64th level, Taylor's Shaft. | XV | He fell for 10 feet from a stage on which he was standing. | Simple fracture of lower ends of both bones of left forearm. |
| Hand jumper mestri, (M. 8,038—B. 5,766) | No. 20 stope below the 34th level N., Oakley's Shaft. | II | While taking down loose rock, a sharp shale fell upon his leg. | Wound of left leg; tendo achilles completely cut. |
| Timber cooly ... | Ladderway, No. 1 winze S. from crosscut W., 48th level, Bullen's Incline Shaft | XV | While climbing down the winze, he slipped from the ladder and fell about 20 feet upon a sollar. | Wound of scalp and chin with concussion of brain. |

# RECORD OF FATAL

## AT MINES WORKING IN THE STATE

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|
| Date of Accident | Registered Number of Accident | Name and Situation of Mine | Time of Accident (counting hours from midnight) | Number of hours worked before Accident | Names and Number of Persons killed (*All males unless otherwise stated*) | Names and Number of Persons injured (*All males unless otherwise stated*) | Reputed Age |
| 2nd August ... | 93 | Ooregum Gold Mine, Bowringpet Taluk, Kolar District—(*contd.*) | 12-40 | 5½ | ... | 1 M. Muniswami... | 38 |
| 7th August ... | 97 | Do ... | 12-10 | 5 | ... | 1 P. Chinnian ... | 30 |
| 8th August ... | 98 | Do ... | 9 | 2 | ... | 1 U. Ahmed Kutty | 22 |
| 31st August ... | 107 | Do ... | 12 | 5 | ... | 1 B. Francis ... | 25 |
| 17th September... | 125 | Do ... | 10 | 3 | ... | 1 P. Mottay ... | 35 |
| 18th September... | 118 | Do ... | 12-30 | 5½ | ... | 1 A. Munian ... | 30 |
| 19th September... | 120 | Do ... | 18-15 | 8 | 1 V. Muniappa ... | ... | 48 |
| 25th September... | 128 | Do ... | 15-45 | ¾ | 1 V. Kunjoo Nair... | ... | 38 |
| 1st October ... | 133 | Do ... | 22-35 | 7¾ | ... | 1 M. Aundi ... | 50 |
| 27th October ... | 143 | Do ... | 12 | 5 | ... | 1 K. Kali ... | 25 |
| 28th October ... | 150 | Do ... | 14-30 | 7½ | ... | 1 K. Muniswami ... | 50 |
| 31st October ... | 147 | Do ... | 11 | 4 | ... | 1 C. Periaswami ... | 48 |
| 31st October ... | 148 | Do ... | 17-45 | 2 | 1 K. Byrappa ... | ... | 25 |
| 10th November... | 154 | Do ... | 12 | 5 | ... | 1 K. Muniswami ... | 26 |

# AND SERIOUS ACCIDENTS

## OF MYSORE DURING THE YEAR 1922—*continued*. Table 13—*continued*.

| 9 | 10 | 11 | 12 | 13 |
|---|---|---|---|---|
| Occupation | Place of Accident | Class of Accident in terms of Table 7 | Cause of Accident | Nature of Injury |
| Handleman ... | Sink 35 feet below the 50th level, Oakley's Auxiliary Shaft. | XI | A rockburst ... ... | Compound fracture of right ankle; tendo achilles cut. |
| Hand jumper cooly. | No. 9 stope above the 45th level N., Bullen's Incline Shaft. | XI | A burst of quartz ... ... | Extensive lacerated wound of right upper arm, muscles cut; and multiple wounds all over the body. |
| Hand jumper cooly. | No. 26 stope below the 36th level N., Oakley's Incline Shaft. | XI | While drilling in the stope, there was a rockburst in the footwall and he was struck by falling pieces. | Lacerated wound of back, muscles cut; surgical emphysema. |
| Handleman ... | Sink, 56 feet below the 50th level, New Auxiliary Shaft. | XI | A rockburst ... ... | Wounds of both legs, muscles cut. |
| Stuff cooly ... | Drive, 64th level N., Bullen's Incline Shaft | XI | A small rockburst ... .. | Wound of left knee. |
| Hand jumper cooly. | No. 8 stope below the 51st level N., Bullen's Incline Shaft. | I | A stone fell from the hanging wall upon his knee. | Wound of left knee, joint opened. |
| Hand jumper cooly. | Man cage between the 42nd and 21st level stations, Oakley's Incline Shaft. | VI | While riding up in the cage, his head struck against the shaft timbers. | Head crushed. |
| Cotterman ... | No. 1 main winze below the 64th level N., Bullen's Incline Shaft. | XV | While taking jumpers from the top of the winze, he somehow slipped and fell into and down it. | Multiple injuries to head and body. |
| Underground watchman. | Cage, Bullen's Vertical Shaft. | XIX | While riding up in the cage, he was struck in the eye by a tamping stick carried by another man. | Deep wound of left eye. |
| Hand jumper cooly. | No. 24 stope below the 46th level N., Bullen's Shaft. | XI | A rockburst ... ... | Wound of left leg; tendon cut. |
| Black rock cooly | Drive, 49th level S., Bullen's Shaft. | XI | A rockburst ... ... | Compound fracture of right ankle. |
| Timber mestri (M. 785). | No. 31 stope below the 45th level N., Bullen's Incline Shaft. | I | While lowering a piece of timber, a sharp piece of rock fell upon his knee from the hanging wall. | Wound of left knee; joint opened. |
| Stuff cooly ... | Skip road, 50 ft. below the 42nd level, Bullen's Incline Shaft. | VIII | While cleaning down the shaft, he lost his hold and fell 600 feet. | Body mutilated. |
| Hand jumper cooly. | No. 14 stope below the 48th level S., Bullen's Shaft. | XV | While clearing away quartz, he slipped and fell into the chute pass, a distance of 15 feet. | Wound of scalp and right knee, joint opened; abrasions all over the body. |

# RECORD OF FATAL

## AT MINES WORKING IN THE STATE

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|
| Date of Accident | Registered Number of Accident | Name and Situation of Mine | Time of Accident (counting hours from midnight) | Number of hours worked before Accident | Names and Number of Persons killed (*All males unless otherwise stated*) | Names and Number of Persons injured (*All males unless otherwise stated*) | Reputed Age |
| 13th November... | 156 | The Ooregum Gold Mine, Bowringpet Taluk, Kolar District. | 12 | 5 | ... | 1 O. Neelkanda Nair | 22 |
| 23rd November... | 164 | Do ... | 8 | 1 | ... | 1 K. Kandaswami... | 40 |
| 3rd December ... | 170 | Do ... | 22 | 7 | ... | 1 V. Narayana ... | 35 |
| 4th December ... | 165 | Do ... | 10 | 3 | ... | 1 Murugesan ... | 22 |
| 9th December ... | 169 | Do ... | 6 | 7 | ... | 1 B. Murthy ... | 40 |
| 15th December ... | 172 | Do ... | 9-40 | 2 | ... | 1 Nanjappah ... | 26 |
| 29th December ... | 179 | Do ... | 8-15 | 1¼ | ... | 1 V. Muniswami ... | 25 |
| 29th December ... | 181 | Do (*concld.*) | 13 | 6 | ... | 1 Parasuraman ... | 13 |
| 10th January ... | 6 | The Nundydroog Gold Mine, Bowringpet Taluk, Kolar District. | 5 | 6 | ... | 1 D. Subramany . . | 22 |
| 6th February ... | 18 | Do ... | 22-40 | 7 | 1 M. Munian ... | ... | 30 |
| 26th February ... | 22 | Do ... | 10-45 | 3¾ | 1 V. Armugam ... | ... | 53 |
| 3rd March ... | 28 | Do ... | 13 | 6 | ... | 1 B. Parasan ... | 30 |
| 26th March ... | 35 | Do ... | 10-30 | 3½ | ... | 1 E. Chengoden . . | 24 |
| 24th April ... | 45 | Do ... | 19 | 12 | ... | 1 A. Kutty ... | 25 |

# AND SERIOUS ACCIDENTS

## OF MYSORE DURING THE YEAR 1922—*continued.* Table 13—*continued.*

| 9 | 10 | 11 | 12 | 13 |
|---|---|---|---|---|
| Occupation | Place of Accident | Class of Accident in terms of Table 7 | Cause of Accident | Nature of Injury |
| Cotterman ... | Crosscut for fan chamber, 66th level S., Bullen Shaft. | XI | A rockburst ... ... | Extensive lacerated wound with compound fracture of right little toe and metatarsal bone. |
| Hand jumper mestri (M. 8,134-B. 5,846). | No. 1 stope below the 50th level, Oakley's Incline Shaft. | XIX | While taking down loose with a bar. a slip of rock flew into his eye. | Corneal ulcer in right eye; (due to neglected injury). |
| Machine cooly ... | Drive, 66th level N. from No. 2 main winze, Oakley's Shaft. | III | While drilling, a small piece of quartz fell upon his knee. | Wound of left knee; joint opened. |
| Gang cooly ... | Fitting shop (surface) | XXIII | While helping to move a mortar mill roller, it fell over and pinned him against a post. | Simple fracture of left thigh. |
| Cotterman ... | Crosscut W., 60th level S., Taylor's No. 2 Vertical Shaft. | II | While clearing away broken rock after blasting, a small piece of stone fell upon his knee. | Wound of right knee; joint opened. |
| Gang cooly ... | Carpenters' shop (surface). | XXIII | When lowering a tool shelf from a bandy, the shelf capsized and fell on the man's leg. | Simple fracture of right thigh. |
| Stuff mestri (M. 11,233—B. 7,631). | Fan chamber, 66th level, Bullen's Shaft. | II | While fetching a bar to take down loose rock, a slab of rock fell upon him. | Crushed forearm and hand. |
| Mason's boy ... | W. Block, cooly lines (surface). | XXIII | While he was leaning against a prop supporting a door, the prop slipped and the door fell on him. | Simple fracture of right humerus and contusion of forehead. |
| Bar cooly ... | Sink, 40 feet below the 4,400 ft. level, Kennedy's Main Winze. | XIX | While filling the broken rock into the skip, a stone fell on his leg. | Wound of left leg; tendo achilles cut. |
| Skip filler ... | Skip road about 550 feet below surface, Oriental Shaft. | VI | While riding up in the skip, he was severely shaken owing to the rope slipping off the drum and the skip, in consequence, falling about 50 feet. | Fracture of spine and right seventh rib. Died in hospital on 24th March. |
| Hand jumper cooly | Stope below the 2,750 ft. level N., Oriental Shaft. | I | A fall of rock from the hanging wall. | Severe internal injuries and wounds of right thigh and shoulder. |
| Stuff cooly ... | Drive, 2,900 ft. level N., Oriental Shaft. | XIX | While clearing away quartz from a pile in the level, a stone rolled down upon his leg. | Wound of left leg; tendo achilles cut. |
| Cotterman ... | No. 2 winze below the 4,000 ft. level N., Kennedy's Shaft. | I | Some rock from the hanging wall fell upon his foot. | Lacerated wound of lef foot; great 2nd, 3rd and 4th toes crushed. |
| Hand jumper cooly | Stope below the 3,500 ft. intermediate level N., Oriental Shaft. | III | He was struck by a small piece of rock which fell down the chute pass. | Compound depressed fracture of skull and wound of left wrist. |

# RECORD OF FATAL

## AT MINES WORKING IN THE STATE

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|
| Date of Accident | Registered Number of Accident | Name and Situation of Mine | Time of Accident (counting hours from midnight) | Number of hours worked before Accident | Names and Number of Persons killed (*All males unless otherwise stated*) | Names and Number of Persons injured (*All males unless otherwise stated*) | Reputed Age |
| 3rd May ... | 49 | The Nundydroog Gold Mine, Bowringpet Taluk, Kolar District —(*contd.*) | 20 | 5 | 1 V. Lucas ... | ... | 26 |
| 15th May ... | 55 | Do ... | 11-40 | 4½ | ... | 1 C. Chaku ... | 22 |
| 20th May ... | 59 | Do ... | 12-45 | 5¾ | 1 V. Munian ... | ... | 35 |
| 23rd May ... | 61 | Do ... | 18-45 | 3¾ | ... | 1 P. Ruthnam ... | 23 |
| 4th June ... | 64 | Do ... | 12-30 | 5 | ... | 1 A. Perumal ... | 23 |
| 17th June ... | 72 | Do ... | 15 | 8 | ... | 1 S. Murugese ... | 50 |
| 18th June ... | 73 | Do ... | 11-30 | 4½ | ... | 1 B. Murugan ... | 36 |
| 22nd June ... | 75 | Do ... | 16-40 | 9½ | ... | 1 G. Maury ... | 45 |
| 5th July ... | 80 | Do ... | 3-25 | 4¼ | ... | 1 V. Narayanan ... | 35 |
| 10th July ... | 83 | Do ... | 17-30 | 3¼ | 1 K. Rangaswami | ... | 20 |
| 4th August ... | 94 | Do ... | 11-30 | 4½ | ... | 1 A. Murugan ... | 33 |

| 9 | 10 | 11 | 12 | 13 |
|---|---|---|---|---|
| Occupation | Place of Accident | Class of Accident in terms of Table 7 | Cause of Accident | Nature of injury |
| Bar cooly ... | Plat, 3,800 ft. level, Richards' Incline Shaft. | VIII | While trying to get from the ladder upon the foot-wall of the shaft, he lost his hold and fell into the sink—a distance of 240 feet. | Compound fracture of skull and injuries to body and limbs. |
| Hand jumper cooly | No. 1 stope below the 3,500 ft. level N., Kennedy's Shaft. | XI | A rockburst ... ... | Compound depressed fracture of skull. |
| Timber mestri ... (M. 4,496—B. 7,251). | Stope below the 3,350 ft. level N., Oriental Shaft. | XV | He fell from a ladder upon a sollar 18 feet below. | Fracture of base of skull. Died in hospital the same day. |
| Stuff cooly ... | Stope above the 3,500 ft. level N., Kennedy's Shaft. | XI | A rockburst ... ... | Simple fracture of right humerus and lacerated wound of left arm and forehead. |
| Vat discharge cooly | Entrance to the bottom of collector vats on the down line. Cyanide Plant (surface) | XXII | While taking two bandies down an incline, the front one came in contact with a water pipe and rebounding, struck his head. | Suspected fracture of base of skull; wound of right upper jaw and loss of 5 molars, wound of scalp. |
| Timber cooly ... | No. 6 stope below the 3,050 ft. level N., Oriental Shaft. | XIX | While helping to lift a piece of timber, a sharp shale of rock fell upon his leg. | Extensive lacerated wound of left leg; tendo achilles cut. |
| Plate layer (M. 7,891). | Rise on east lode above the 3,800 ft level N., Kennedy s Shaft. | XI | A rockburst ... ... | Compound comminuted fracture of right wrist and wound of thigh. Hand amputated. |
| Hand jumper cooly | Stope below the 850 ft. level, Oriental Shaft. | XIII | Through drilling into a socket containing some blasting gelatine. | Extensive lacerated wound of right hand with compound fracture of metacarpal bone of ring finger and little finger crushed; peppered wounds of chest, arms and foreign bodies in both eyes. |
| Hand jumper cooly | At point of communication, 4,000 ft. level, Henry Shaft. | XI | A rockburst ... ... | Right hand crushed and wound of forehead. |
| Mixer screen cooly | Vortex mixer (surface) | XX | He was, for some unknown reason, inside the mixer when the motor was started in order to remove the driving belt, with the result that he was injured by the revolving blades. | Lacerated wound with fracture of skull; wounds of right forearm and both legs; right knee joint opened. Died in hospital on 11th July. |
| Timber mestri ... (M. 10,554). | Stope below the 900 ft. level N., Oriental Shaft. | XV | While repairing a ' rearing," he was struck by a small piece of plank that fell down the chute pass from the stope above. | Compound fracture of skull. |

# RECORD OF FATAL

## AT MINES WORKING IN THE STATE

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|
| Date of Accident | Registered Number of Accident | Name and Situation of Mine | Time of Accident (counting hours from midnight) | Number of hours worked before Accident | Names and Number of Persons killed (*All males unless otherwise stated*) | Names and Number of Persons injured (*All males unless otherwise stated*) | Reputed Age |
| 6th August ... | 95 | The Nundydroog Gold Mine, Bowringpet Taluk, Kolar District —(*contd.*) | 11 | 4½ | ... | 1 Papadu ... | 24 |
| 17th August ... | 100 | Do ... | 12-30 | 5½ | 1 M. Manickam ... | ... | 35 |
| 20th August ... | 103 | Do ... | 11 | 4 | ... | 1 K. Arumugam ... | 25 |
| 2nd September ... | 108 | Do ... | 1-30 | 2½ | ... | 1 C. Parasuraman | 50 |
| 14th September... | 113 | Do ... | 13 | 6 | ... | 1 S. Iyavu ... | 32 |
| 20th September... | 121 | Do ... | 3 | 4 | 2 P. Jom ... | ... | 46 |
| | | | | | C. Perumal ...<br>and | ... | 36 |
| | | | | | M. Aundi ... | ... | 16 |
| | | | | | | 3 V. Kuppan ... | 30 |
| | | | | | | Khader Hussein<br>and | 35 |
| | | | | | | K. Narayanaswami | 30 |
| 23rd September... | 127 | Do ... | 7-30 | ... | ... | 1 S. Aundi ... | 50 |
| 26th September... | 130 | Do ... | 14 | 7 | ... | 1 P. Abdul Jaffar | 32 |

| 9 | 10 | 11 | 12 | 13 |
|---|---|---|---|---|
| Occupation | Place of Accident | Class of Accident in terms of Table 7 | Cause of Accident | Nature of Injury |
| Timber cooly ... | No. 14 stope above the 4,000 ft. level N., Oriental Shaft. | XIX | While a piece of timber was being lifted by blocks and rope, it dislodged a sharp shale from the hanging wall, which fell upon his foot. | Wound of left leg, tendo achilles cut; ankle joint opened and fracture of oscalcis. |
| Stuff mestri ... (M. 4,826). | Chute below the 1,400 ft. level, Oriental Shaft. | X | He was struck by a plank which fell down the ladder way of the shaft. | Fracture of left lower four ribs and back bone; internal injuries. |
| Skip road cooly... | About 10 ft. below the 3,500 ft. level, Kennedy's Shaft. | XIX | While stooping down to pick up a bar, he placed his hand on a runner and the descending skip ran over it. | Compound fracture of right little ring and middle fingers and wounds of palm. |
| Cotterman ... | Pump chamber, 4,000 ft. level, Richards' Incline Shaft. | II | While tightening the machine bar, a piece of rock fell upon his leg. | Wound of right leg, tendon cut. |
| Timber cooly ... | Stope below the 3,050 ft. level N., Richards' Incline Shaft. | XIX | While holding a light for the mestri who was taking down "loose," a piece of rock struck his knee. | Wound of left knee, joint opened. |
| Handleman ... | About 50 ft. below the 44th level, Oriental Main Winze. | XI | A heavy rockburst ... ... | Body crushed. |
| Do ... | Do ... | Do | Do ... ... | Do. |
| Bar cooly ... | Do ... | Do | Do ... ... | Do. |
| Mestri (M. 7,416—B. 5,266). | Do ... | Do | Do ... ... | Multiple wounds of scalp, compound fracture of nasal bone, wounds of both arms and right knee, contused right ankle and foot. Fracture of right tibia. |
| Bar cooly .. | Do ... | Do | Do ... ... | Compound comminuted fracture of both bones of right leg. |
| Cotterman ... | Do ... | Do | Do ... .. | Lacerated wounds of both legs and contusion of chest. |
| Hand jumper cooly | Stope above the 3,050 ft. level N., Kennedy's Shaft. | XI | A burst of quartz ... ... | Deep wound of right eye; iris prolapsed. |
| Cotterman ... | Rise above the 4,400 ft. level N., Kennedy's Shaft. | XI | A rockburst ... ... | Extensive lacerated wound of right forearm and muscles cut; joint opened. |

# RECORD OF FATAL

## AT MINES WORKING IN THE STATE

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|
| Date of Accident | Registered Number of Accident | Name and Situation of Mine | Time of Accident (counting hours from midnight) | Number of hours worked before Accident | Names and Number of Persons killed (*All males unless otherwise stated*) | Names and Number of Persons injured (*All males unless otherwise stated*) | Reputed Age |
| 2nd October ... | 132 | The Nundydroog Gold Mine, Bowringpet Taluk, Kolar District —(*contd.*) | 19-45 | 4¾ | 1 S. Murugese Gowndan. | ... | 50 |
| 23rd October ... | 144 | Do ... | 5 | 6 | ... | 1 T. Subramany ... | 25 |
| 30th October ... | 146 | Do ... | 23-30 | ⅓ | 3 S. Annamalay ... | ... | 40 |
| | | | | | P. Chattu ... | ... | 38 |
| | | | | | and | | |
| | | | | | S. Perumal ... | ... | 30 |
| | | | | | ... | 2 S. Govindan ... | 39 |
| | | | | | | and | |
| | | | | | ... | A. Kundan ... | 38 |
| 2nd November... | 149 | Do ... | 14 | 7 | ... | 1 G. Goyeegan *alias* Muniswami. | 40 |
| 6th December ... | 167 | Do ... | 19-20 | 4⅓ | 1 K. Ponnuswami... | ... | 38 |
| 8th December ... | 168 | Do ... | 2 | 3 | ... | 1 T. Chinnian ... | 16 |
| 19th December ... | 173 | Do ... | 21-45 | 6¾ | 1 T. Marren ... | ... | 35 |
| 21st December ... | 175 | Do ... | 19-30 | 4½ | ... | 1 R. Narayanaswami *alias* Narayanan. | 35 |

| 9 | 10 | 11 | 12 | 13 |
|---|---|---|---|---|
| Occupation | Place of Accident | Class of Accident in terms of Table 7 | Cause of Accident | Nature of Injury |
| Machine mestri (M. 7,087—B. 5,011). | Sink, 200 feet below 4,400 ft. level, Kennedy's Main Winze. | X | While working in the sink, he was struck by a piece of rock that fell from the chute above, where a skip was being filled. | Compound fracture of skull and simple fracture of right scapula, 6th, 7th and 8th ribs. Died in hospital the same day. |
| Cotterman ... | Crosscut E., 4,200 ft. level, Oriental Shaft. | XIV | After giving warning that blasting was about to take place, he returned to the crosscut just as the charge exploded. | Contused wound of leg and septic ulcer of left leg; peppered wounds all over the body. |
| Timber cooly ... | Above the 3,800 ft. level plat, Taylor's Shaft. | XI | A rockburst ... ... | Multiple wounds of the body and internal injuries. |
| Do ... | Do ... | Do | Do ... ... | Do |
| Do ... | Do ... | Do | Do ... ... | Do |
| Timber mestri (M. 5,000). | Do ... | Do | Do ... ... | Lacerated wound of forehead, wounds of scalp, face, back and right thigh ; left knee joint opened. |
| Timber cooly ... | Do ... | Do | Do ... ... | Simple fracture of eft femur, contusion of chest and wounds of feet. |
| Mestri (M. 3,841) | Crosscut W. to Henry Shaft, 44th level, Kennedy's Shaft. | XI | A rockburst ... ... | Wound of right knee; joint opened. |
| Bell fitter ... | Plat, 2,700 ft. level, Richards' Incline Shaft. | VI | While the cage was slowly descending, he put out his head which was caught between the cage and the plat timber. | Fracture of base of skull; right ear torn off. Died in hospital on 12th January 1923. (Tetanus). |
| Assistant blaster | Intermediate drive, 43rd level N., from No. 1 winze on East Lode, Oriental Shaft. | III | While clearing away broken rock after blasting, a piece of quartz fell upon him. | Wound of right knee, joint opened, wound of scalp. |
| Cotterman ... | Sink, 125 feet below the 44th level, Oriental Main Winze. | XI | A rockburst ... ... | Left thigh broken; multiple injuries all over the body. |
| Handleman (M. 9,879—B. 6,924) | Drive 850 ft. level N., Walker's Shaft. | XI | A quartzburst ... ... | Wound of left knee; joint opened (leg amputated). |

# RECORD OF FATAL

## AT MINES WORKING IN THE STATE

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|
| Date of Accident | Registered Number of Accident | Name and Situation of Mine | Time of Accident (counting hours from midnight) | Number of hours worked before Accident | Names and Number of Persons killed (*All males unless otherwise stated*) | Names and Number of Persons injured (*All males unless otherwise stated*) | Reputed Age |
| 23rd December ... | 176 | The Nundydroog Gold Mine, Bowringpet Taluk, Kolar District (*contd.*) | 11-15 | 4¼ | 1 P. Muniswami ... | ... | 27 |
| 25th December ... | 178 | Do ... | 6 | 7 | 1 T. Ramaswami ... | ... | 30 |
| 25th December ... | 177 | Do (*concld.*) | 22-30 | 7½ | ... | 1 Singaram ... | 52 |
| 6th January ... | 9 | The Balaghat Gold Mine, Bowringpet Taluk, Kolar District. | 11 | 4 | ... | 1 V. Murugan ... | 36 |
| 3rd February ... | 17 | Do ... | 21 | 5 | ... | 1 C. Narasigan ... | 28 |
| 10th March ... | 30 | Do ... | 16 | 9 | ... | 1 M. Mahomed ... | 35 |
| 20th April ... | 41 | Do ... | 12-25 | 5½ | 1 Sbaik Hyder ... | ... | 45 |
| 21st April ... | 42 | Do ... | 11 | 4 | ... | 1 A. Oonian ... | 35 |
| 27th April ... | 46 | Do ... | 16 | 8 | 1 Chinnappa ... | ... | 20 |
| 16th May ... | 57 | Do ... | 15 | 8 | ... | 1 M. Oonian ... | 33 |
| 16th June ... | 89 | Do ... | 21 | 6 | 1 V. Muniswami ... | ... | 35 |

# AND SERIOUS ACCIDENTS

## OF MYSORE DURING THE YEAR 1922—*continued.* Table 13—*continued.*

| 9 | 10 | 11 | 12 | 13 |
|---|---|---|---|---|
| Occupation | Place of Accident | Class of Accident in terms of Table 7 | Cause of Accident | Nature of Injury |
| Timber cooly ... | Stope below the 2,150 ft. intermediate level N., Richard's Shaft. | XVII | While tramming waste rock, he and the bandy fell into the stope and he was crushed against the foot wall. | Deep cut below the left ear, multiple injuries on chest and hemorrhage in both ears. |
| Cotterman ... | Sink, 70 ft. below the 46th level, Kennedy's Main Winze. | XIII | While taking up loose rock, the bar went into a socket that contained some blasting gelatine. | Multiple injuries of head and body. |
| Engine driver ... | In the skip, 30 feet above 4,000 ft. plat, Kennedy's Main Winze. | IV | The skip was overwound while he was riding upon the bow. | Simple fracture of both bones of right forearm, with wound. |
| Timber cooly ... | Hoist chamber, 2,000 ft. level, Ogle's Main Winze. | XIX | While tightening a nut, the spanner slipped and he struck his elbow against a piece of timber. | Wound of left elbow. |
| Stuff cooly ... | Drive, 4,000 ft. level S., Tennant's Main Winze. | XVII | He slipped and fell while tramming stuff, and the bandy ran over his foot. | Extensive lacerated wound of right foot with compound fracture of ankle and great toe. Extensive lacerated wound of left great toe. |
| Hand jumper cooly. | No. 1 stope below the 2,400 ft. level S., Tennant's Shaft. | XI | He was struck by a small piece of rock shaken down from the hanging wall by a heavy rockburst. | Compound fracture of skull, wound of right ear and knee. |
| Mill cooly ... | Mill House (surface). | XX | He was drawn under a pulley by the belt. | General mutilation. |
| Mestri (M. 9,895 —B. 6,929). | No. 6 stope below the 2,500 ft. level S., Tennant's Shaft. | XIX | While taking down loose with a bar, some pieces of rock fell upon him. | Compound fracture of left ring and little fingers, wounds of right leg, ankle and foot; extensive lacerated wound of left elbow; muscles cut. |
| Bar cooly ... | Plat, 4,000 ft. level, Tennant's Main Winze. | VIII | While getting into the cage, he made a false step, slipped and fell down the shaft. | Fracture of skull and right leg, multiple wounds of body. |
| Hand jumper cooly. | No. 3 stope below the 2,400 ft. level S., Tennant's Shaft. | XIX | While starting to drill a new hole, a chip of rock flew into his eye. | Corneal ulcer and hypopyon of right eye, due to a neglected injury. |
| Timber cooly ... | No. 1 winze below the 4,300 ft. level S., Tennant's Main Winze. | XV | While working in the winze, he was struck by a jumper which fell from somewhere above. | Perforating wound with compound fracture of right foot. Asthma. Heart failure after continuous suppuration. Died in hospital on 22nd July. |

# RECORD OF FATAL

## AT MINES WORKING IN THE STATE

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|
| Date of Accident | Registered Number of Accident | Name and Situation of Mine | Time of Accident (counting hours from midnight) | Number of hours worked before Accident | Names and Number of Persons killed (*All males unless otherwise stated*) | Names and Number of Persons injured (*All males unless otherwise stated*) | Reputed Age |
| 26th August ... | 106 | The Balaghat Gold Mine, Bowringpet Taluk, Kolar District. | 2-15 | 3¼ | 2 Chinniah ... | ... | 40 |
| | | | | | and | | |
| | | | | | V. Kuppan ... | ... | 40 |
| 15th September... | 115 | Do ... | 3-30 | 4½ | 1 Chengiah ... | ... | 35 |
| 2nd October ... | 136 | Do ... | 11 | 4 | ... | 1 Chinnapillay ... | 28 |
| 27th November ... | 162 | Do (*concld.*) | 7 | 8 | ... | 1 Periaswami ... | 37 |

| 9<br>Occupation | 10<br>Place of Accident | 11<br>Class of Accident in terms of Table 7 | 12<br>Cause of Accident | 13<br>Nature of Injury |
|---|---|---|---|---|
| Timber cooly ... | Plat, 4,300 ft. level, Tennant's Main Winze. | XI | A very heavy rockburst. ... | Fractured skull, broken neck, and wounds all over the body. |
| Do ... | Do ... | Do | Do ... ... | Wounds of both thighs and right leg, muscles cut; compound fracture of right tibia and small wounds all over the body. Died in hospital the same day. |
| Timber mestri (M. 4,783-B. 849). | Between the 42nd and 43rd levels, No. 2 winze N. of Tennant's Main Winze. | VI | While riding up in the bucket, he was struck by a pole hitched up in the road. | Compound fracture of both bones of left leg, compound comminuted fracture of thigh and contusion of abdomen. Died in hospital on 16th September. |
| Tramming cooly. | Chute, 2,600 ft. level, Tennant's Main Winze. | XIX | While drawing stuff from a chute, a small piece flew into his eye. | Corneal ulcer and hypopyon of right eye due to neglected injury. |
| Timber cooly ... | Plat, 4,200 ft. level, No. 2 winze N. of Tennant's Main Winze. | XV | While taking out runners in the winze, a stone fell upon his knee. | Wound of right knee-joint opened. |

# RECORD OF FATAL AND SERIOUS ACCIDENTS.

## [NON-MINING.]

# RECORD OF FATAL

## AT MINES WORKING IN THE STATE

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|
| Date of Accident | Registered Number of Accident | Name and Situation of Mine | Time of Accident (counting hours from midnight) | Number of hours worked before Accident | Names and Number of Persons killed (*All males unless otherwise stated*) | Names and Number of Persons injured (*All males unless otherwise stated*) | Reputed Age |
| 23rd November ... | 161 | The Mysore Gold Mine, Bowringpet Taluk, Kolar District. | 12·30 | ... | ... | 1 Gnanamanickam. | 11 |
| 24th January ... | 12 | The Champion Reef Gold Mine, Bowringpet Taluk, Kolar District. | 9-30 | 1½ | 1 P. Gungan ... | ... | 35 |
| 1st April ... | 38 | Do (*concld.*) | 14-30 | 6½ | 1 O. Narayanaswami. | ... | 50 |
| 25th January ... | 11 | The Nundydroog Gold Mine, Bowringpet Taluk, Kolar District. | 11-30 | Not on duty | ... | 1 A. Duraiswami ... | 26 |
| 9th August ... | 102 | Do (*concld.*) | 10 | ... | 1 Kullamma (female) | ... | 70 |
| 21st October ... | 155 | The Kolar Brickmaking Co., Ltd. | 14-30 | ... | 1 Muniswami *alias* Kappai Kalan. | ... | 12 |

# AND SERIOUS ACCIDENTS—(*NON-MINING*).

## OF MYSORE DURING THE YEAR 1922.

**Table 13A.**
**(Supplementary).**

| 9 | 10 | 11 | 12 | 13 |
|---|---|---|---|---|
| Occupation | Place of Accident | Class of Accident in terms of Table 7 | Cause of Accident | Nature of Injury |
| Unemployed ... | At the back of No. 2 Mixed Block, Edgar's Shaft. | XXIII | He attempted to clean out a detonator that he had picked up with the result that it exploded. | Peppered wounds of left hand; little and ring fingers blown off —wounds of both feet. |
| Timber cooly ... | Drive 19th level S., Tennant's Shaft. | ... | ... | Death due to gastric intestinal colic. (Natural causes—no accident). |
| Timber cooly ... | Plat, 46th level, Glen Shaft. | XIX | He fainted when climbing up the shaft after work. | Collapse underground. Died in hospital on 2nd April. |
| Lander ... | Kennedy's Shaft Lines near M. and S. M. Railway (surface). | X | While cutting grass on a bank near the railway, he struck a detonator concealed in it, which exploded. | Left 1st three fingers blown off and wounds of right thumb and index finger; abrasion of right thigh. |
| Unemployed ... | Endless ropeway embankment leading to Sonnakuppam Tank (surface). | XXII | While walking on the embankment, she was run over by an ascending truck. | Injury to left foot. Died in the Civil Hospital on 17th August (Tetanus). |
| ... | Tank near brickworks, Kolar Brickmaking, Co., Ltd., Mysore Mine (surface). | XXIII | Slipped and fell into a water-hole (pit). | Asphyxiation due to drowning. |

# REPORTS OF THE CHIEF INSPECTOR OF MINES IN MYSORE.

Containing Statistical Tables relating to Capital, Machinery and Plant.

Work done and number of persons employed. Production and Cost, Accidents and Mortality.

A few notes and reports on items of interest are mentioned in the following list:—

*Year 1898.*—Total gold production to date, treatment of ore. Classification of accidents.

*Year 1899.*—Minor Economic Products, Classification of accidents, Air blasts—Plague on the Kolar Gold Field.

Appendix—Note on the geology of the Kolar Schists and surrounding rocks.

Map of the Kolar Schist Belt—Plate I.

Map of the Kolar Gold Field—Plate II.

*Year 1900.*—Labour, wages and costs. The Cauvery Falls Power Scheme.

*Year 1901.*—Water-supply for the Kolar Field. Report on the Woolagiri and Amble Mining Blocks, Mysore District, with map and sections. Report on the Ajjampur Block, Kadur District, with map and sections. Note on the New Town (Robertsonpet), Kolar Gold Field, by F. E. C. Carr, Esq., Deputy Commissioner.

*Year 1902 to June 1903.*—Tetanus on the Kolar Gold Field with Statistics.

Mine Signalling with diagrams.

Air-blasts and quakes: general report with sketches.

*Year 1903-04.*—Working costs in the Kolar Mines. Note on Milling and Cyanide Practice on the Kolar Field. The Cauvery Power Supply. The Kolar Mines Power Station.

*Year 1904-05.*—General Progress Notes. East Betrayaswami Block, Kolar District. Bellara Block, Tumkur District.

*Year 1905-06.*—General Progress Notes. Fire at the Nundydroog Mine.

*Year 1906-07.*—Note on the Bellara, Javanhalli and other gold blocks in the Tumkur and Chitaldrug Districts, on the Honnehatti, Tambadihalli, Jalagargundi, Nandi, Sakrebail, Devrukal and other gold blocks in the Kadur and Shimoga Districts. Reports on the Woolagiri Mine and the Hunjankere Block, Mysore District. The Anantapur Gold Field. Manganese Prospecting Blocks. Chrome ores of the Hassan and Mysore Districts.

*Year 1907-08.*—Reports on Shaws' Block and Ahmed's Block, Kolar District. Further Notes on Prospecting Blocks in various districts.

*Year 1908-09.*—Fire at the Nundydroog Mine. Air-blast in the New Circular Shaft, Champion Reef, with sketch of the Sinking Frame and Protective Shield.

*Year 1909-10.*—The Kolar Mines Power Station. Air-blast, Champion Reef, Fracture of Winding Rope.

*Year 1910-11.*—Notes on Air-blasts and Quakes.

*Year 1911-12.*—Report on the Manighatta Block, Kolar District, with plans.

Progress in Ore treatment on the Kolar Field. Proposed Schemes for treatment of tailings and slimes.

Report on Seismographs for recording air-blasts.

*Year 1912-13.*—Notes on the Siddarhalli, Nandi, Woolagiri and other Gold Mining Blocks.

Notes on the Holmes', Python, Chattanhalli, Sigimatti, Markande, Tippur and Shankaragudda Manganese Blocks in the Shimoga District.

*Year 1913-14.*—Progress Notes, Kolar District. The Siddarhalli and Jalagargundi Mines, etc., Kadur District.

Prospecting work at Kudrikonda, Palavanhalli and Honnali, Shimoga District; alluvial washings at Saulanga and on the Tungabhadra river. Manganese, Chrome, Magnesite, Iron Ore, Mica, Copper, Asbestos and Corundum. Notes on Air-blasts. Meteorology and Seismology on the Kolar Field.

Report on the Edgar's Shaft Cage Accident, Mysore Mine.

*Year 1914.*—Progress Notes, Kolar District. Notes on the Kumsi and Shankargudda Manganese blocks in the Shimoga District, Chrome, Magnesite, Iron Ore, Mica, Asbestos, Corundum, Copper, Columbite and Clay. Notes on Accidents—Air-blasts. Meteorology and Seismology on the Kolar Gold Field.

*Year 1915-16.*—Progress Notes, Kolar District. Notes on Manganese, Chrome, Magnesite, Mica, Asbestos, Antimony, and Corundum. Notes on Accidents. Meteorology and Seismology on the Kolar Gold Field.

*Year 1916-17.*—Progress Notes, Kolar District. Notes on Manganese, Chrome, Magnesite, Asbestos, Mica, Antimony, Corundum, Galena, Kaolin or China Clay, Potstone and Ochres. Notes on Accidents. Meteorology and Seismology on the Kolar Gold Field.

*Year 1917-18.*—Progress Notes, Kolar District. Notes on Manganese, Chrome, Magnesite, Asbestos, Mica, Antimony, Corundum, Galena, Kaolin, Potstone and Ochres. Notes on Accidents. Meteorology and Seismology on the Kolar Gold Field.

*Year 1918-19.*—Progress Notes, Kolar District. Notes on Manganese, Chrome, Magnesite, Asbestos, Mica, Antimony, Corundum, Galena, Kaolin, Potstone, Ochres, Pyrites and Copper. Notes on Accidents. Meteorology and Seismology on the Kolar Gold Field. Sketch describing the method of Rill Stoping showing the various stages.

*Year 1919-20.*—Progress Notes, Kolar District. Notes on Manganese, Chrome, Magnesite, Asbestos, Mica, Antimony, Corundum, Potstone, Kaolin, Ochres, Pyrites, Limestone and Galena. Notes on Accidents. Meteorology and Seismology on the Kolar Gold Field.

*Year 1920-21.*—Progress Notes, Kolar District. Notes on Manganese, Chrome, Ore, Magnesite, Asbestos, Mica, Soapstone, Kaolin, Ochres, Limestone, Antimony, Corundum and Galena. Notes on Accidents. Meteorology and Seismology on the Kolar Gold Field.

*Year 1921-22.*—Progress Notes, Kolar District. Notes on Manganese, Chrome, Magnesite, Asbestos, Mica, Kaolin or China Clay, Ochres, Corundum, Limestone, Copper, Slate and Graphite. Notes on Accidents. Meteorology and Seismology on the Kolar Gold Field.

*The price of each Report is two rupees.*

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## REPORT OF THE CHIEF INSPECTOR OF EXPLOSIVES IN MYSORE.

Published annually from the year 1901 to 1921 inclusive. *Price eight annas each.* The Report for 1901 contains standard plans of Magazines and Lightning Conductor.

Explosives Section (Notes) for the year 1922-23 are incorporated in the report of the Chief Inspector of Mines in Mysore for the same period.

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